(科目区分)Basic subjectsCourse Title (授業科目名)Basic medicine General remarksInstructors (担当者名)Academic Affairs ChairAcademic Year (配当年次)Required Course (Degree Vartion Course)Required CourseCredits (単位数)Required Course (必修/選択)Required CourseCredits (単位数)Class Format (授業形態)WebClass (on demand)Credits 1000000000000000000000000000000000000		Category					
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	Course Outline/ Course Objectives(授業の概要及び到達目標)	Instructor	Department (講座名)
	(Contents of Class) ((授業内容))	(担当教員名)	Class Room〔実施場所〕
10	The purpose is to deepen the understanding of diseases by clarifying biological phenomena at the molecular level. Here, we will explain how to elucidate the cause of onset by	Professor Yoshihiro Matsumura Assistant Professor Yukio Koizumi	Department of Biochemistry and Metabolic Science
	understanding the structure and function of proteins and protein-chemical and enzymatic-chemical methods. In addition, learn the metabolism of amino acids, sugars, and		
	lipids, and learn the causes of these inborn errors of metabolism from the viewpoint of genetic abnormalities.	Assistant Professor Jianbo An	[Webclass]
13	The course is about the Membrane transport within the cells. We would like to explain historic consequence of the reserch	Professor Kota Saito	Department of Biological Informatics and
14 15	and the disease caused by the defects in intracellular transport	Assistant Professor Miharu Maeda	Experimental Therapeutics, [Webclass]
	The aim of the lecture is to understand the mechanism of neurotransmission, which is essential for brain function, and to	Professor Takafumi Miki	Department of Cell Physiology [Webclass]
17	understand the process of information processing in the brain from the perspective of the hierarchical structure of the brain. This includes molecules, synapses, neurons, neuronal circuits,		
18	brain regions and individuals.		
19	Pathlogy is a science on the mechanism of human disease development and is considered to consist in the basis of medicine. Every human disease results from functional and	Professor	5
20	structural disorders of normal cells and from bioreaction to normalize such disorders, which can be observed as	Yuko Hiroshima Assistant Professor	Department of Molecular Pathology and Tumor Pathology [WebClass]
	series of lectures, various lesions being the basis of diseases will be presented and explained.	Maya Suzuki	
22	In this course, basic pathologies in the cardiovascular, respiratory, and renal systems will be taught. Comprehensive and case-specific education will be provided, especially on		
23	autopsy cases of lung cancer. The students will learn about myocardial infarction, atherosclerosis, and glomerulonephritis, among others.	Professor Akiteru Goto, (Associate Professor Makoto Yoshida)	Department of Cellular and Organ Pathology (Occupational Therapy) [Webclass]
01	The goal is to be able to explain the pathological findings of the major diseases that occur in these organs at the gross, tissue, and molecular levels.		
25	To undepertued typical simpling activity is antenness typical	Professor Masamitsu Tanaka	Department of Molecular Biochemistry
26	To understand typical signaling pathways in ontogeny, tumor development and progression, and cell interactions based on tissue morphogenesis.	Associate Professor Sei Kuriyama Assistant Professor	Reserch Building for Basic Medicine
27	· -	Go Itoh	[Webclass]

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28	Since the development of the small pox vaccine by Jenner, immunology has progressed by solving the problems of why the immune system can have great diversity and why it does not respond to self. In this lecture, we will study the history of Satoshi Ishii [Web Class]						
29							
30	the great researches of pioneers, including the experimental methods that led to breakthroughs.						
Grac	l <mark>ing Criteria</mark> (成績評価の基準と方法)	•					
Grad	Grading is based on the viewing of lectures and reports.						
<mark>Contact Information</mark> (問い合わせ先(氏名, メールアドレス等))							
Name: Academic Affairs Chair / E-mail: gakumu-in@jimu.akita-u.ac.jp							
Com	<mark>ment</mark> (その他特記事項)						
Information about the course of study : Please watch the lectures by yourself via WebClass. Viewing period: Late April – December 31 Textbooks and references: None in particular Study content during self-study time: It is advisable to conduct preparatory study according to the achievement objectives and class content.							