<mark>Category</mark> (科目区分)		Basic subjects			
<mark>Course Title</mark> (授業科目名)		Biomolecule quantification technology			
<mark>Instructors</mark> (担当者名)		Masamitsu Tanaka	Academic Year (配当年次)	1	
Required Course / Elective Course (必修/選択)		Elective Cpourse	<mark>Credits</mark> (単位数)	1	
<mark>Class Format</mark> (授業形態)		Remote or Webclass			
<mark>Schedule</mark> (開講期間)		Students will be notified by email after completing the course registration.			
Class Date/Period (開講曜日・時間) Stud		udents will be notified by email after completing the course registration.			
Purpose of class: The purpose of the lesson is to understand how to quantify various cellular components. Achievement goal of class: In addition to quantification methods for proteins and nucleic acids that constitute living organisms, the goal is to learn and practice specific quantification methods for biological functional molecules					
Course Planning (授業計画)					
	Course Outline (Conter	/ Course Objectives(授業の概要及び到達目標) nts of Class) ((授業内容))	<mark>Instructor</mark> (担当教員名)	Department (講座名) Class Room 〔実施場所〕	
1	Colorimetric pro	otein quantification			
2	ELISA principle	ISA principle		Molecukar Medicine and biochemistry	
3	Quantitative techniques for determining apoptosis		Professor Masamitsu Tanaka		
4	Quantification o	uantification of extracellular vesicles ytokine quantification technology			
5	Cytokine quanti				
6	Quantitative me	asurement of nucleic acids (DNA, RNA)			
7	Principles of RT-qPCR				
8	Quantitative me (intracellular Ca	easurement of second messengers ions and cAMP)	Lecturer: Daisuke Yasuda	Immunology	
9	Quantitative and	alysis of western blotting images			
10	Quantitative and	alysis of histological images using Image J			
Grading Criteria (成績評価の基準と方法)					
30 hours of remote or Web class + 15 hours of self-study, 45 hours in total is counted as 1 credit, attendance status, the results of the oral and written examinations and the contents of the submitted report will be taken into consideration to evalue.					
Contact Information (問い合わせ先(氏名,メールアドレス等))					
Name: Masamitsu Tanaka / E-mail:mastanak@med.akita-u.ac.jp Daisuke YASUDA / E-mail: dyasuda@gipc.akita-u.ac.jp					
Coment (その他特記事項)					
Information about the course: If you cannot attend the training due to work, we will adjust the schedule. Textbooks / References: Distribute materials as needed. Alternatively, specify the document. Self-study content during self-study time: It is desirable to carry out preparatory learning according to the goals to be achieved and the content of the lesson.					