C (†] (Requ Ele	(科目区分) Course Title 受業科目名) Instructors 〔担当者名〕	Cluster of Biofunctional Systems Neuroscience and practical training			
(ੈੈ] (Requ Ele	受業科目名) Instructors	Neuroscience and practical training			
(Requ Ele		Neuroscience and practical training			
Ele		Tomohiro Numata	<mark>Academic Year</mark> (配当年次)	1	
	uired Course / ective Course 必修/選択)	Elective	<mark>Credits</mark> (単位数)	1	
	Class Format (授業形態) Lecture				
(Schedule (開講期間) Students will be notified by email after completing the course registration.				
	Class Date/Period (開講曜日 • 時間)				
Course Outline/ Course Objectives (授業の概要・到達目標)					
Purpose of the class: The goal of this class is to understand a wide range of physiological fields and learn basic knowledge as a medical student.					
Achievement goal of the class: The goal is to understand neuroscience, electrophysiology, and neuropharmacology widely. To do that, read and discuss research papers on the latest neuroscience.					
neuropharmacology widely. To do that, read and discuss research papers on the latest neuroscience.					
Class Overview: Classes provide an overview and technical characteristics of each of the themes of nerve labeling, patch-clamp, and optogenetics.					
Course Planning (授業計画)					
		[/] Course Objectives(授業の概要及び到達目標) ts 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	Introduction	duction			
3 4	nerve labeling m	ethod			
4 5	Department of				
6	patch clamp tec	hnique	Tomohiro Numata	Integrative Physiology	
7					
8 9	optogenetics				
10					
Grading Criteria (成績評価の基準と方法)					
		ical training and 15 hours of self-study in the s	seminar room, a tota	al of 45 hours, will be	
used for one unit. Grades will be considered by attendance, examination results, and reports.					
Contact Information (問い合わせ先(氏名, メールアドレス等))					
Name: Prof. Tomohiro Numata / E-mail: numata@med.akita-u.ac.jp					
Coment (その他特記事項)					
memt Textt Self-	ber of society, w books / Referen study content d	urses: If you cannot attend the training due to ve will adjust the schedule. ces: Materials will be distributed as needed. uring self-study time: It is desirable to carry of and the content of the lesson.			