

<b>Category</b> (科目区分)	Cluster of Biofunctional Systems		
<b>Course Title</b> (授業科目名)	Neuroscience and practical training		
<b>Instructors</b> (担当者名)	Tomohiro Numata	<b>Academic Year</b> (配当年次)	1
<b>Required Course / Elective Course</b> (必修/選択)	Elective	<b>Credits</b> (単位数)	1
<b>Class Format</b> (授業形態)	Lecture		
<b>Schedule</b> (開講期間)	Students will be notified by email after completing the course registration.		
<b>Class Date/Period</b> (開講曜日・時間)	Students will be notified by email after completing the course		
<b>Course Outline/ Course Objectives</b> (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.			
Class Overview: Classes provide an overview and technical characteristics of each of the themes of nerve labeling, patch-clamp, and optogenetics.			
<b>Course Planning</b> (授業計画)			
	<b>Course Outline/ Course Objectives</b> (授業の概要及び到達目標) ( <b>Contents of Class</b> ) (授業内容)	<b>Instructor</b> (担当教員名)	<b>Department</b> (講座名) <b>Class Room</b> [実施場所]
1	Introduction	Tomohiro Numata	Department of Integrative Physiology
2			
3	nerve labeling method		
4			
5	patch clamp technique		
6			
7	optogenetics		
8			
9			
10			
<b>Grading Criteria</b> (成績評価の基準と方法)			
Thirty hours of practical training and 15 hours of self-study in the seminar room, a total of 45 hours, will be used for one unit. Grades will be considered by attendance, examination results, and reports.			
<b>Contact Information</b> (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			
<b>Comment</b> (その他特記事項)			
Information about courses: If you cannot attend the training due to work, such as a graduate student who is a member of society, we will adjust the schedule. Textbooks / References: Materials will be distributed as needed. 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.			