



CampusPlan Web Service

Syllabus Reference

Course title	Fundamental Neuroscience 1		
Term	後期 2nd Half		
Credit(s)	1		
The main day		The main period	
Program/Department	48 Physiological Sciences		
Lecturers	Yoshimura, Watanabe, Wake, Nemoto et al.		
成績評価区分 Grading Scale	A, B, C, Dの4段階評価 Four-grade evaluation		
レベル Level	Level 3		
力量 Competence	専門力 Academic expertise、独創性 Creativity		

Instructor

Full name

* YOSHIMURA YUMIKO

WATANABE EIJI

Outline	This lecture series will focus on the properties of individual neurons, glial cells, and neural circuits, several basic brain functions, and the analytical methods in order to understand the mechanisms for information processing in the brain.
Learning objectives	① To understand the neural basis of sensory function. ② To understand the diversity of neurons and the property of synaptic connections. ③ To understand the properties and functional roles of glial cells. ④ To understand the neural basis of biological rhythms. ⑤ To understand the analytical methods with fluorescence imaging.
Grading policy	Students must attend at least half of the lectures to get credit. Students are requested to submit an essay report on the assignment by the dead line. The grades are determined by the quality of the report.
Lecture Plan	Date and Time: Friday 10:00-11:30 from October 2023 to December 2023 (see below) 1st lecture, October 27 (Fri) ‘Visual function I’ Yumiko Yoshimura 2nd lecture, November 10 (Fri) ‘Visual function II’ Taisuke Yoneda 3rd lecture, November 17 (Fri) ‘Visual function III (visual illusions and brain model studies)’ Eiji Watanabe 4th lecture, November 24 (Fri) ‘Somatosensory function’ Madoka Narushima 5th lecture, December 1 (Fri) ‘Architecture and functional significance of cortical microcircuit’ Yoshiyuki Kubota 6th lecture, December 8 (Fri) ‘Physiological and pathological functions of glial cells’ Hiroaki Wake 7th lecture, December 15 (Fri) ‘Neural basis of biological rhythms’ Ryosuke Enoki 8th lecture, December 22 (Fri) ‘Fluorescence imaging’ Tomomi Nemoto
Location	Online using Zoom or onsite (Lecture room, NIPS Myodaiji Building 1F or Seminar room B of the Yamate 3rd Building 9F)

Language	English
Textbooks and references	None
Notes for students of other programs	Students in courses other than the Physiological Sciences course should contact the following email address before enrolling in the course. sokendai-adm@nips.ac.jp
Others	D1 and D2 students in the Physiological Sciences course are strongly recommended to take this class. Students from all courses are also welcome.

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