

Confirm - Syllabus

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Course title	Principle and Methodology in Brain Science	
Term	前期 1st Half	
Credit(s)	1	
The main day		The main period
School/Program	School of Life Science	
Department/Program	Common Subjects of Life Science	
Category	Common	
Lecturers	Mitsuhiro Tateyama, Akiyuki Nishimura, and others	

Instructor

Full name

* NAMBU ATSUSHI

Outline	This subject focuses on experimental approaches in brain science. 13 methodologies frequently used in brain science will be introduced to cultivate critical views on scientific data.
Goal	Understanding the basic principles in Molecular physiological methods, Methods for cardio-vascular functions, Molecular biological and biochemical methods, Electro physiological methods, Optical microscopy, Methodology in genome science, Methods for neuroimmunology, Morphological methods, Cell biological methods, Optical methods to read and manipulate neural circuits, Behavioral methods, Methods for sensory biology, In vivo imaging of the human brain.
Grading system	
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Grading system	01:Four-grade evaluation (A, B, C, D)
Grading policy	Students must attend at least half of the lectures to get credit. It is also required to write a short paper on a topic related to one of the lectures. The paper will be graded by the lecturer, and it will be used to determine pass/fail.
Lecture Plan	Schedule: May 12 - June 30 10:00-11:00, 11:00-12:00 on Thursdays May 12 Molecular physiological methods (Mitsuhiro Tateyama) May 12 Methods for cardio-vascular functions (Akiyuki Nishimura) May 19 Molecular biological and biochemical methods 1 (Yuko Fukata) May 19 Molecular biological and biochemical methods 2 (Kenta Kobayashi) May 26 Electrophysiological methods 1 (Madoka Narushima) May 26 Electrophysiological methods 2 (Saeka Tomatsu) Jun 1 Optical microscopy 1 (Hideji Murakoshi)

	<p>Jun 1 Optical microscopy 2 (Ryosuke Enoki) Jun 9 Methodology in genome science (Yasuhiro Go) Jun 9 Methods for neuroimmunology (Rie Hasebe) Jun 16 Morphological methods (Yoshiyuki Kubota) Jun 16 Cell biological methods (Yasushi Izumi) Jun 23 Optical methods to read and manipulate neural circuits (Masakazu Agetsuma) Jun 23 Behavioral methods (Kenichiro Nakajima) Jun 30 Methods for sensory biology (Takaaki Sokabe) Jun 30 In vivo imaging of the human brain (Masaki Fukunaga)</p>
Location	Zoom online
Language	English
Textbooks and references	“Guide to Research Techniques in Neuroscience” edited by Matt Carter and Jennifer Shieh, Academic Press (2010).
Related URL	http://sbsjp.nips.ac.jp/schedule/
Explanatory note on above URL	Please keep be updated on the latest schedule from ” Schedule of the classes” on the program website.
Others	Pre-requisites: No particular background knowledge is required.
Keyword	SOKENDAI Integrative Brain Science Course

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