Course title: Principle and Methodology in Brain Science

Term: 前期 1st Half

Credit(s): 1

School/Program: School of Life Science
Department/Program: Common Subjects of Life Science
Category: Common

Lecturers: Mitsuhiro Tateyama, Akiyuki Nishimura, and others

Instructor: 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.


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:
- 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)
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Jun 1</td>
<td>Optical microscopy 2 (Ryosuke Enoki)</td>
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<td>Jun 9</td>
<td>Methodology in genome science (Yasuhiro Go)</td>
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<td>Jun 9</td>
<td>Methods for neuroimmunology (Rie Hasebe)</td>
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<td>Jun 16</td>
<td>Morphological methods (Yoshiyuki Kubota)</td>
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<td>Jun 16</td>
<td>Cell biological methods (Yasushi Izumi)</td>
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<td>Jun 23</td>
<td>Optical methods to read and manipulate neural circuits (Masakazu Agetsuma)</td>
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<td>Jun 23</td>
<td>Behavioral methods (Kenichiro Nakajima)</td>
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<td>Jun 30</td>
<td>Methods for sensory biology (Takaaki Sokabe)</td>
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<td>Jun 30</td>
<td>In vivo imaging of the human brain (Masaki Fukunaga)</td>
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**Location**  
Zoom online

**Language**  
English

**Textbooks and references**  

**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