### Brain science step by step I

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class starts at</td>
<td>1st semester • 2nd semester</td>
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<tr>
<td>Period</td>
<td>One semester</td>
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<td>Subject Code</td>
<td>10PBS002</td>
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<td>Course title</td>
<td>Brain science step by step I</td>
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<td>School/Department/Program</td>
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<tr>
<td>Credit</td>
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<td>Category</td>
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<td>Field</td>
<td>None Category</td>
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#### Course description
Technical words and terms, basic knowledge, and concepts relating to the brain science are explained. The contents extend into the large realm of the brain science, but deal with just a small part. With this as a starting point, students are expected to deepen the learning with English textbooks or the original papers.

#### Course purpose
To obtain the foundation of the brain science and understand the fundamental subjects correctly.

#### Grading policy and criteria
Students are required to view all the lectures one by one and complete Challenge Quizzes set at the end of respective topics as well as Mini Tests. And students will be assigned to take the Assessment Test in the designated period. The grades will be determined by the progression status of Mini Tests and the scores of the Assessment Test. Students can take the Assessment only once from July 3 to August 10, 2017 (1st semester).

#### Course content
- Schedule: At any time within an academic year
- Course registration will be completed by submitting an “Course Registration” to the Administration Office at each Parent Institute and Login ID will be given to each registrant. Students may login with the ID to the web page and conduct a self-study.
- URL: https://sakura.nips.ac.jp/moodle/
- Contents:
  1. Macroscopic overview
  2. Membrane transport
  3. Neuron and glia
  4. Axons: conduction, transport and injury
  5. Peripheral nervous system
  6. Synapse
  7. Membrane potential basics
  8. Membrane potential
  9. Central nervous system
  10. Spinal cord
  11. Cranial nerves
  12. Muscles
  13. Eye and ear anatomy
  14. Ear physiology
  15. Optic pathway

#### Classroom location
https://sakura.nips.ac.jp/moodle/

#### Language used in the classroom
English

#### Suggested grade level
1, 2, 3

#### Textbooks and required readings
None

#### Remarks
Pre-requisites: No particular background knowledge is required.

#### Course coordinator
Atsushi Nambu