5. Information signals and their managements in brain
2. Functions (Sensation) External recognition systems
   1. Informatization of various sensory signals
   2. Sensors placed throughout the body "Somatic sensation"
   3. The mechanism of visual sensation
4. The mechanism of auditory sensation
5. The mechanism of olfactory sensation
6. The mechanism of gustatory sensation

3. Motor Function Transmitting motor command and its
   regulation
   1. Mechanism by which nerve signals cause movement
   2. Regulation of skeletal muscle movement by the spinal cord
   3. Planning of movements and mechanism controlling smooth
      movements
   4. Motor control by the cerebellum

4. Integrated Auto-regulator
   1. Hypothalamus
   2. Autonomic nervous system
   3. Wide area regulation of brain by neurotransmitter
   4. Diffuse modulatory system composed by astrocyte

5. Higher brain functions
   1. Emotion
   2. Linguistic abilities
   3. Memory ability

【実施場所 Location】
https://sakura.nips.ac.jp/moodle/

履修届けを提出した学生にログインIDが発行されます。発
行されたIDによりログイン後、自主学習を行ってください。
Login ID will be given to each registrant. Students may login
with the ID to the web page and conduct a self-study.

【使用言語 Language】
英語

【教科書・参考図書 Textbooks and references】
木藤佳久『もっとよくわかる！脳神経科学～やっぱり脳はス
ゴイのだ！（実験医学別冊 もっとよくわかる！シリーズ）』羊

【授業を担当する教員 Lecturers】
南部駿 Atsushi Nambu

【関連URL Related URL】
URL:

【上記URLの説明 Explanatory Note on above URL】

【備考・キーアード Others/Keyword】
【キーワード/Keywords】
脳科学専攻間融合コース群 SOKENDAI Integrative Brain
Science Course
E-learning
Basic knowledge necessary for brain science can be learned through an e-learning system with lecture and small tests.

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

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 in the designated period.

The grades will be determined by the progression status of Mini Tests and the scores of the Assessment.

Students can take the Assessment only once following period

2nd semester: from December 1, 2020 to February 5, 2021

[URL]: https://sakura.nips.ac.jp/moodle/

1. BASIC Understanding of brain as a system
   1. Clues to understand the brain
   2. Development of brain and its shape

2. Functions (Sensation) External recognition systems
   1. Informatization of various sensory signals
   2. Sensors placed throughout the body “Somatic sensation”
   3. The mechanism of visual sensation
   4. The mechanism of auditory sensation
   5. The mechanism of olfactory sensation
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3. Motor Function Transmitting motor command and its regulation
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English

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南部篤 Atsushi Nambu

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【キーワード/Keywords】
脳科学専攻演講会コース群 SOKENDAI Integrative Brain Science Course
E-learning