

Graduate Program of Brain Science Comprehensive Curriculum

Call for Enrollment in Hokkaido University Inter-Graduate School Classes for 2026

Basic Brain Science

To help understanding the basics of brain science, faculty members of the Research and Education Center for Brain Science (RECBS) offer Basic Brain Science I – VI

- **Eligibility:** Master's and doctoral students in all graduate schools (elective compulsory subject for the Graduate Program of Brain Science)
- **Term:** First semester
- **Course structure:** The course consists of 6 subjects. Students are free to choose

Lectures / Practice classes

I Neural Signaling

- **Responsible faculty:** Haruyuki Kamiya (Faculty of Medicine)
- **Description:** Learn how information is transmitted in the nervous system
- **Date and time:** April 6 – June 1 (Mon, 5th period)
- **Place:** Lecture Room III (Clinical Medicine Lecture Building 1F)

Lecture

II Brain Structure and Function

- **Responsible faculty:** Miwako Yamasaki (Faculty of Medicine)
- **Description:** Learn about the composition, cell types, and main functions of the brain.
- **Date and time:** April 10 May 22 (Fri, 5th period)
- **Place:** Lecture Room III (Clinical Medicine Lecture Building 1F)

Lecture

III Systems Neuroscience

- **Responsible faculty:** Masaki Tanaka (Faculty of Medicine)
- **Description:** Overview of the functions of the CNS
- **Date and time:** June 8 – June 29 (Mon and Fri, 5th period)
- **Place:** Lecture Room III (Clinical Medicine Lecture Building 1F)

Lecture

IV Molecular and Cellular Basis of Neurotransmission

- **Responsible faculty:** Masabumi Minami (Faculty of Pharmaceutical Sciences)
- **Description:** Learn about the molecular basis of brain signaling
- **Date and time:** June 9 – July 21 (Tue, 5th period)
- **Place:** Lecture Room II, School of Pharmaceutical Sciences (Clinical Pharmaceutical Lecture Building 1F)

Lecture

V Practice for Human Brain Anatomy

- **Responsible faculty:** Miwako Yamasaki (Faculty of Medicine)
- **Description:** Understanding the brain structure through human brain dissection (Students must take at least two subjects from lectures I – IV and VI)
- **Date and time:** July 15 (Wed, 9 a.m.-3 p.m.)
- **Place:** Histopathology Lab (3rd floor of the Biomedical and Dental Sciences Research Building)

Practice class

VI The Foundations of Cognitive Sciences and Functional Imaging

- **Responsible faculty:** Koichi Yokosawa (Faculty of Health Sciences)
- **Description:** Consider the state of the mind based on the function of the brain, experience representative functional brain imaging methods
- **Date and time:** [Lecture] June 1 – (Mon, 2nd period)
[Practice class] Intensive course in summer
- **Place:** Histopathology Lab (3rd floor of the Biomedical and Dental Sciences Research Building)

Lecture

Practice class



- **Course registration:** Register the class numbers listed in the inter-graduate course syllabus (web syllabus) according to the instructions by the Academic Affairs Office of your graduate school. The deadline is indicated by the graduate school.
- **Course Details:** See the website of the Research and Education Center for Brain Science ("For Student") at https://www.hokudai.ac.jp/recbs/05_student/student.html
- **Course coordinator:** Miwako Yamasaki Department of Anatomy and Embryology, Faculty of Medicine (Tel: 706-5022, brain@med.hokudai.ac.jp)

Graduate Program of Brain Science Comprehensive Curriculum

Call for Enrollment in Hokkaido University Inter-Graduate School Classes for 2026

Advanced Brain Science Research

As an introduction to cutting-edge brain science research, the faculty members of the Research and Education Center for Brain Science (RECBS) offer Brain Science I – IV

- **Eligibility:** Master's and doctoral students in all graduate schools (elective compulsory subject for the Graduate Program of Brain Science)
- **Term:** First (I, IVa) or second (II, III, IVb) semester
- **Course structure:** The course consists of 7 subjects. Students are free to choose

Lectures

Lecture I is held on Thursday (4th period) in the first semester and Lecture II is held on Wednesday (4th period) in the second semester. Both are at the Seminar Room 3-1 of the School of Medicine (Central Research Building, 3rd floor)

I Brain Science 2026

- **Responsible faculty:** Tomomi Tsunematsu (Faculty of Science)
 - April 16: The cutting edge of sleep research using mice (Tomomi Tsunematsu)
 - April 23: Non-invasive brain functional imaging methods and their cognitive and psychological applications (Koichi Yokosawa)
 - April 30: Neuromodulation in the field of rehabilitation medicine (Masahiko Mukaino)
 - May 7: What if Psychoanalysis and Neuroscience meet? Relationship between Unconscious Drives and Microglia (Takahiro Kato)
 - May 14: Brain research in Non-model animals (Yuichi Takeuchi)
 - May 21: Human motor control mechanism (Hiroko Tanabe)
 - May 28: Gestalt psychology and event-related potential (Tetsuko Kasai)

II Brain Science 2026

- **Responsible faculty:** Masaki Abe (Faculty of Education)
 - October 7: Unraveling Joint Action: Cognitive Neuroscience Approaches (Masaki Abe)
 - October 14: Functional analysis of biological clocks in mammals (Yujiro Yamanaka)
 - October 21: Fluorescent Imaging Techniques for Cellular Functions (Akira Kitamura)
 - October 28: Neuro-molecular basis underlying individual variability of learning capacities (Kazuhiro Wada)
 - November 4: On Moving as One Wishes (Fumino Fujiyama)
 - November 11: Brain MRI: From Diagnosis to Understanding Disease Mechanisms (Khin Khin Tha)
 - November 18: Basics and Application of Brain MRI (Kohsuke Kudo)

Practice classes

For each of the practice classes I and II, students must complete at least one practical training in the methodologies covered in the lectures. The date, time, place, and content of the practical training will be given in the lecture.

I Brain Science 2026

- **Responsible faculty:** Tomomi Tsunematsu (Faculty of Science)
The class will be offered in the first semester.

II Brain Science 2026

- **Responsible faculty:** Masaki Abe (Faculty of Education)
The class will be offered in the second semester.

Seminar

Participation in the training camp hosted by the RECBS. Details will be posted on the website.

Seminar

Participation in designated lectures, symposia, and presentations hosted by the RECBS.

III Presentation Skills of Brain Science 2026

- **Responsible faculty:** Miwako Yamasaki (Faculty of Medicine)

2nd semester

IV-a/b Advanced Brain Science Seminar 2026

- **Responsible faculty:** Miwako Yamasaki (Faculty of Medicine)

1st and 2nd semester

- **Course registration:** Register the class numbers listed in the inter-graduate course syllabus (web syllabus) according to the instructions by the Academic Affairs Office of your graduate school. The deadline is indicated by the graduate school.
- **Course Details:** See the website of the Research and Education Center for Brain Science ("For Student") at https://www.hokudai.ac.jp/recbs/05_student/student.html
- **Course coordinator:** Miwako Yamasaki Department of Anatomy and Embryology, Faculty of Medicine (Tel: 706-5022, brain@med.hokudai.ac.jp)