

RIKEN CBS Brain Science Training Program Syllabus

*Please note that this syllabus is not final and is subject to change. Many TBA/TBD items will only be available to admitted students.

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2. What is the Brain Science Training Program?

2.1 Program Description

The Brain Science Training Program is a 2-semester-long (October through June) lecture series that consists of 24 lectures, each taught by different RIKEN CBS team/unit directors, 2 journal club presentations, and 2 exams at the end of each semester. This program is suitable for those with a strong interest in becoming a neuroscientist. It is primarily designed for early-stage graduate students, but applications will be accepted from senior graduate and undergraduate students as well. If you only wish to attend some lectures by RIKEN CBS PIs, there is an option to audit.

2.2 Mission & Learning Outcomes

Neuroscience employs a wide range of disciplines from molecular biology to mathematics to ethology. Brain Science Training Program takes full advantage of the great diversity of CBS's research and provides a systematic overview of neuroscience. It is our sincere hope that through this program, we will be able to play a part in fostering the next generation of neuroscientists.

By the end of the program, students:

1. Have a good grasp of the broad field of neuroscience
2. Can connect concepts and methods in different subfields of neuroscience
3. Are informed about scientific practices and a wide variety of training/career paths to become a neuroscientist
4. Are more confident in scientific communication in English
5. Have peers as well as mentors who share the same passion for neuroscience
6. Are ready to come back to RIKEN CBS (hopefully...!)

3. General Information

3.1 Program Basics

Program Chair: Dr. Adrian Moore

Program Vice Chair: Dr. Fumi Kubo & Dr. Thomas McHugh

Program Instructors: CBS Team/Unit Directors

Teaching Assistant: Eichi Toyozumi

Administrative Support: CBS HD Team

Class Format & Time: Onsite (+ few online) on Tuesday 17:00~19:00

Language of Instruction: English

3.2 Important Dates

Application Open: 2026-07-07

Application Deadline: 2026-09-04

Program Start: 2026-10-06

Journal Club #1: 2026-12-08

Midterm Exam: 2027-02-02

Journal Club #2: 2027-04-20

Final Exam: 2027-06-01
Graduation Ceremony: 2027-06-08

3.3 Links

Class Google Drive: available upon admission to the course
Post-class Reports: available upon admission to the course
Zoom link for Journal Club & Exams: available upon admission to the course
Closed Website: available upon admission to the course
Application website: <https://cbs.riken.jp/en/TP/>
Voice of former participants: <https://cbs.riken.jp/en/TP/closerlook.html>

4. Program Format & Structure

4.1 Participation Options

- **Regular Course:** For those who intend to fully take part in BSTP (all components listed in Section 3.2). You will be graded, and with a satisfactory grade, you will receive a certificate of completion at the end. You are expected to attend on-site, but we do have spots for a fully online regular course for those who are unable to commute to RIKEN CBS every week (you will have the option in the application form). If you are trying to earn university credits for UTokyo or Waseda, this is your option.
- **Audit Course:** For those who are interested in attending certain lectures but not in earning a certificate of completion. You will have access to the lectures (not the lecture material) but no other training. At this time, you will be attending lectures on Zoom only, but you may be allowed to attend on-site depending on the number of students enrolled in the regular course.

	Available Content	Participation	Certificate	University Credits
Regular Course	Full Content	Onsite (+ few online)	Yes	Yes (for some)
Audit Course	Lectures only	Online (Zoom)	No	No

4.2 Completion Requirement & Grading

Attendance & Post-class Reports	30%
Journal Club x2	15% x2 = 30%
Exam x2	15% x2 = 30%
Active participation & Peer Evaluation	10%
Total	100%

For completion, you must attend at least 75% of the program, which translates to missing up to 3 lectures per semester. Participation in exams and Journal clubs is required. A grade of less than 50% would result in an incomplete, and you will NOT receive a certificate of completion. Grades are weighted as follows:

For those of you taking BSTP as university credits, these percentages will then be converted to a grade. 80% or more would be converted to the highest grade in the system, and 50% or less would be the lowest grade.

4.3 Lecture

Select RIKEN CBS team/unit directors each give 2-hour lectures. In the first half, they give an overview of their field, and in the second half, they dive into their research.

- **Attendance:** Onsite participants are expected to attend classes onsite at RIKEN CBS. You are allowed to miss onsite attendance 3 times per semester (separated by midterm exam). Online students are also allowed to miss attendance up to 3 times per semester. Any further missed classes will result in penalty. If you will be absent from the class, please let us know through this form: URL TBA.
- **Lecture Materials:** Lecture materials such as slides are going to be uploaded to the Class Google Drive Folder (Hopefully about a week or so in advance). Please do NOT share the lecture material with anyone.
- **Post-class Reports:** After each lecture/journal club/exam, you are required to submit a short report Google Form by the end of next Monday (Monday 11:59 p.m.).
- **Asking questions during the lecture:** For those of you onsite, speak up and directly ask. For those of you on Zoom, type your question into the chat unless the lecturer asks you to speak up.
- **Video policy for Zoom participants:** All regular students on Zoom are expected to turn their video on at all times during the lecture. If you have a reason to not be able to do so, let the admin team know.
- **Recording of lectures:** All lectures are recorded and saved on Zoom cloud storage and will be available for regular students to watch for a week. Please note that this does not make this class “on-demand”, and we expect everyone to show up to the lectures.

4.4 Journal Club

There will be 2 Journal clubs. Both of them will be in a “peer-review” practice format. Instructors will pick a preprint, and the students will prepare their own “peer-reviews” and as a group prepare a presentation. More detailed protocols will be uploaded to Google Drive, and we will email you when they are.

4.5 Midterm & Final Exam

There will be two oral exams at the end of each semester. The exam will be given on Zoom. Students will be answering a question from a pre-announced set of questions. Protocols will be uploaded to Google Drive, and we will email you when they are.

5. Applying to BSTP

5.1 Eligibility

We expect a level of neuroscience-related knowledge of early graduate students or above. This program is suitable for those with a strong interest in becoming a neuroscientist. It is primarily designed for early-stage graduate students, but applications will be accepted from senior graduate and undergraduate students as well. We currently do NOT admit students who live abroad. Foreigners who live in Japan are eligible to apply.

5.2 Application Documents

Documents required for the regular course and the audit course (see section 4.1) are different, so please prepare your application documents accordingly:

	Regular Course	Audit Course
1. CV in a specific format	☐	☐
2. Letter of Motivation	☐	☐
3. Critical/Scientific thinking evaluation	☐	×
4. Letter of Recommendation from your supervisor	☐	×

1. CV in a specific format: https://cbs.riken.jp/img/TP/CV_BSTP2026.xlsx

2. Letter of Motivation (~400 words)

Explain why you want to participate in BSTP and your motivation behind it.

3. Critical/Scientific Thinking Evaluation (two 500~1,000-word responses)

Step 1: Watch the following sample lecture of BSTP: <https://www.youtube.com/watch?v=pitt11vYJhQ>.

Step 2: Think of two scientific questions you would ask about the sample lecture above. Do your own literature search and compose a written answer to both of your questions. Your question can be related to any subfield of neuroscience (animal, human, computational, molecular, etc.), but make sure you refer to at least one scientific paper each. If there doesn't seem to be a clear answer to your question, provide discussions and speculations based on evidence. Your answers should be 500~1,000 words each without the reference(s), including the question itself.

*Please clearly state your question at the beginning of each response.

*Do NOT choose a paper published by your current or previous lab.

4. Letter of Recommendation from your supervisor

Set your file name as “Your name_Document title” (e.g., Eichi Toyoizumi_Letter of Motivation), and send it through this application form: <https://riken-cbs.form.kintoneapp.com/public/applicationform-bstp2026-2027>

6. Academic Integrity & AI Policy

6.1 Plagiarism

This course does not count towards your academic degree for everyone, but as a program run by an academic research institution, we hold very high standards regarding academic integrity. Any work presented or submitted in this course must be the product of your original effort. When you incorporate the works, words, or ideas of another, you must provide a proper form of citation. Violation of the academic integrity policy may result in dismissal from the course.

6.2 Use of AI in BSTP

We acknowledge that the use of AI such as LLMs can facilitate and sometimes speed up the learning while you are taking a lecture or doing a revision or extra dive in literature before/after the lecture. However, journal clubs and exams in BSTP are opportunities for you to present your originality and test your own ability to engage in academic activities. Using LLMs to generate your answers or slides is both a waste of your time and a waste of the instructor's time, so please don't do it. We will run through all the materials with different AI and compare the outputs to your answers/slides. We will issue a formal inquiry/warning if we have enough evidence to believe that you're not putting your original effort into the course. A severe violation will result in dismissal from the course.

7. Frequently Asked Questions

Q: How much is it?

A: It's Free.

Q: Do you accept students from high school?

A: We will not be able to accept high school students due to space limitations and advanced materials/content.

Q: Do you accept students from the industry?

A: We will consider applicants with adequate academic training (i.e., college degree), but due to space limitations, priority is given to current university students.

Q: If I get rejected for the regular course, can I still participate as an audit student?

A: Yes, we will ask you if you would like to audit the course in the decision letter (by email).

Q: I live abroad. Am I eligible to apply?

A: No, we do not admit students abroad. Foreigners who live in Japan are eligible to apply.

Q: I'm already part of RIKEN CBS, am I eligible to apply?

A: If you are affiliated with the RIKEN CBS lab or are part of the joint graduate program, you are still eligible to apply, and all the procedures are the same. We encourage you to apply as a regular student, but as lectures are open to CBS members there's no reason to apply as audit students.

Q: How do I earn University credits with this course?

A: For those of you trying to make BSTP count towards university credits, you are responsible for registering through your registration system at your university AFTER you are accepted to the BSTP. We cannot register on your behalf. (Currently, this applies to the University of Tokyo, Waseda University, OIST & MIP program at Kyoto University). Even if your university is not listed here, you can/should negotiate with your academic affairs office to make it count towards graduation.