TEACHERS COLLEGE
COLUMBIA UNIVERSITY

Program Guide
M.S. in Neuroscience and Education

Academic Year 2026-2027

CONTENTS

PROGRAM FACULTY & STAFF

Program Director: Professor kay james, Ph.D.

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Program Support: Steven McCafferty (Program Administrator), Patricia Gabriel (Director of Academic Administration), Corey Allen (Department Administrator)

Academic Advisors: Each student is assigned to a primary advisor throughout your time with us. These assignments typically happen during the summer. If you are not sure, please contact the program director.

This document provides an outline of the Program Plan for the Masters in Neuroscience and Education. Each student will take a slightly different path through the program, under the supervision of your advisor. This document explains the basic requirements and shows some of the possibilities for different pathways to the M.Sc. in Neuroscience and Education.

IMPORTANT DATES FOR AY 26-27

Registration opens for Fall semester classes: Monday, May 4th, 2026
Fall semester classes begin: Wednesday, September 2nd, 2026
Add/drop Fall semester: Tuesday, September 15th, 2026
Registration opens for Spring semester classes: Monday, December 7th, 2026
Fall semester ends: Tuesday, December 22nd, 2026
Spring semester classes begin: Tuesday, January 19th, 2027
Add/drop Spring semester: Monday, February 1st, 2027
Spring break: March 15th–March 21st, 2027
Registration opens for Summer classes: Monday, April 26th, 2027
Spring semester ends: Monday, May 10th, 2027
Summer session A begins: Thursday, May 20th, 2027
Summer session B begins: Tuesday, July 6th, 2027

Here is a link to the **Academic Calendar for 2026–2027.**

INTRODUCTION TO THE PROGRAM

Explore the connections between brain science, learning, and real-world impact.

Founded in 1979, the Neuroscience and Education program at Teachers College was the first in the United States and internationally to bring together neuroscience, education, and clinical practice. Today, that pioneering spirit continues. We offer a unique interdisciplinary experience for students who want to understand how brain function relates to behavior, learning, and development, and how scientific insights can be applied to real-world challenges in education, healthcare, research, policy, and industry.

Students in our program learn to think across traditional disciplinary boundaries. Through rigorous coursework, research opportunities, and applied experiences, students develop a strong foundation in brain-behavior relationships while exploring areas that align with their individual interests and career goals. Whether you are preparing for doctoral or medical training, pursuing a research career, or seeking to strengthen your work as an educator or clinician, the program provides both flexibility and scientific depth.

The M.S. degree requires 32 credits of graduate study and offers opportunities to engage in neuroscience research through affiliated laboratories. Students also benefit from the rich intellectual resources of Teachers College and Columbia University, with access to courses, faculty, and mentorship across education, psychology, neuroscience, and related disciplines.

Graduates of the program pursue diverse paths, including doctoral study, clinical training, teaching, educational leadership, research, and industry careers. What they share is the ability to integrate neuroscience with applied disciplines and real-world practice, bringing scientific perspectives to complex questions about how people learn, develop, and thrive.

Our program emphasizes four core areas of growth and training:

1. **Interdisciplinary Knowledge and Skills**
   Students gain foundational knowledge in developmental and cognitive neuroscience at multiple levels: cellular, molecular, systems, and behavioral. They build a strong understanding of how neuroscience connects to real-world challenges in education, human development, and related domains, and how to think critically across disciplines.
2. **Research and Inquiry**
   Students develop the skills to read, evaluate, and contribute to primary neuroscience literature. They learn to design and interpret experiments, understand clinical and educational research, and frame scientific questions that matter in real-world settings.
3. **Diversity, Equity, and Inclusion**
   Students explore how neuroscience can inform more inclusive, equitable approaches to learning. They consider how brain research can be used to address disparities and support all learners in varied educational and cultural contexts.
4. **Communication, Collaboration, and Leadership**
   Students learn how to communicate scientific findings to different audiences, across disciplines and beyond academia. They gain experience in writing, presenting, and translating neuroscience research in ways that make a difference for educators, clinicians, and communities.

PROGRAM GUIDELINES AND POLICIES

1. Academic Integrity

All members of our academic community are expected to uphold standards of academic integrity with respect to general conduct, and to avoid engaging in academic misconduct. Academic misconduct includes (but is not limited to) cheating, plagiarism, fabrication of data or information, misrepresentation of records, or the seeking of unfair advantage.
Please ensure that you are familiar with the Teachers College Student Conduct Code, which can be accessed via the TC Policy Library.

2. Plagiarism and Citation

In our program, we place a high value on academic integrity, original thinking, and responsible scholarship. Plagiarism is contrary to these aims and will be treated as a serious academic matter. Plagiarism means using someone else's words or ideas as if they are your own without providing appropriate, clear citation. If any of your instructors detect evidence of plagiarism, they may apply one or more of the following sanctions, at their discretion:

- Requiring you to re-do the work;
- Grading the affected assignment as a zero;
- Assigning additional work to you;
- Failing you from the course; and/or
- Lodging a formal complaint against you that can lead to a Student Conduct Hearing.

Student Conduct Hearings may lead to significant sanctions, including but not limited to an official written warning, course or grade failure, academic probation, mandated training, suspension or dismissal from the College, revocation of course credit or a degree.

There is some excellent, and accessible, advice about plagiarism here:
Scribendi. (n.d.). *How do I know if I'm plagiarizing?*
https://www.scribendi.com/academy/articles/how_do_i_know_if_im_plagiarizing.en.html

An important way to avoid plagiarism is to cite your sources. When you write assignments in our program, you are expected to always cite your sources, following APA format.

FAQs about Citation and Referencing

What is the difference between citation and referencing?
Citation and referencing are two distinct components of academic writing. *Citation* refers to the brief acknowledgment within the text of the sources used. It typically includes the author's last name and the publication year, enclosed in parentheses. For example, Johnson and Lee (2020) or (Yang, 2019). *Referencing* involves providing detailed information about the sources cited in the text. This information is listed in a Reference List at the end of your document, arranged alphabetically by the authors' last names. The format of a reference list entry varies depending on the source type (e.g., book, journal article, website). Here's an example of APA 7-style referencing for a book:

Yang, P. (2019). *The art of writing*. TCK Publishing.

A reference list must be included at the end of any submitted assignment, and it should include detailed information about ALL and ONLY the sources directly cited in your work. You can find out more about

how to format specific kinds of references here:
https://apastyle.apa.org/style-grammar-guidelines/references

What is the point or purpose of citation?
As scientific writers, we provide evidence from previous work to support our claims and arguments or data. By doing so, we strengthen the credibility of our own work. Citations also allow readers to verify our sources, and allow us to demonstrate the range of sources and perspectives that contributed to and informed our work.

So as you can see, the point of citations and references is about acknowledging the researchers who originated the research, ideas or writings. In this sense, citation is something like a copyright. You are acknowledging that your work builds on the ideas and work of others.

Can I cite a paper even if I have not read it?
No: please read the sources you are citing. The assumption is that you have derived an idea from that source, which should mean that you have read the source in order to understand the ideas included there. For example, if you want to refer to an experiment that you came across in your textbook, go find the paper cited by the textbook, and then cite that paper directly. Do not cite indirectly via the textbook that you read, or via course lectures.

Is a direct quote from a published paper allowed?
In general, we discourage this practice because we would much rather read *your* description of ideas. Anyone (or any AI) can copy text. Remember, your assignments during the program are designed to show YOUR understanding and ideas.

The only reason to directly quote a text is if the authors use wording that specifically pins the ideas very precisely in their own original way. If you do include a direct quote in your work (word for word), then you must set it off in quotation marks and follow this with the author, date and page numbers (if available). But take a look at journal articles to see how often they use direct quotations – not very much!

3. APA Formatting for Assignments

APA 7 format is expected for all your assignments in the program. In particular, your assignments must accurately apply the principles of citation and referencing, as described above. TC's Graduate Writing Center offers frequent training on APA format; please check their events page for upcoming dates:
https://www.tc.columbia.edu/graduate-writing-center/workshops--events/

Here are some additional online resources on APA format:

- The APA website: https://apastyle.apa.org/
- The Online Writing Center (OWL) hosted by Purdue University: https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html

4. AI Policy

Do not use Chat GPT or any other AI program to write your papers for you. Use of AI in our courses is prohibited unless the instructor expressly authorizes it, and unauthorized use may be treated as academic misconduct under course and College policy (see under "Academic Integrity" above).

While AI is a fascinating new technology, it is essential to understand its limitations. This quote by Yejin Choi nicely captures the current state of AI: "AI Is incredibly smart and shockingly stupid." To use it effectively, you need deep knowledge of a field of study to detect when it presents information

inaccurately. In the context of your coursework, AI does not have a semantic understanding of the content, which can lead to inaccuracies. Most importantly, this is a critical time to develop your own critical thinking and writing skills. Use this time to work on finding your own voice, rather than relying on AI to speak for you.

In some of your courses, there are built-in opportunities to work with AI and investigate its strengths and limitations. Make sure you work within the guidelines provided by each professor.

5. Grading

You can find the Teachers College Grading Policy via the TC Policy Library.

Some courses (notably BBSN 5500, the Thesis Course) are graded Pass/Fail only. Each of your instructors makes specific determinations about the grading structure for their own courses, and these may vary; so ensure that you are familiar with the grading rubric that is provided in each course syllabus.

Students must earn a grade of B or above in Program Core Courses (listed below) to maintain academic good standing. The grade of C- is subject to academic review; no more than 3 points of C- may be credited toward any degree, certificate or diploma. Students who accumulate 8 points or more with grades of C- or lower may not continue study at the College and will not receive a degree or diploma.

In general, instructors in the Neuroscience and Education Program follow this framework:

Letter Grade	Typical percentage range	Notes
A+	99 – 100	Exceptional performance. May not be assigned based on extra credit points.
A	93 – 98	
A-	90 – 92	
B+	87 – 89	
B	83 – 86	Minimum requirement for Program Core
B-	80 – 82	
C+	77 – 79	
C	73 – 76	
C-	70 – 72	Subject to academic review
F	69 or lower	

PROGRAM STRUCTURE

COLLEGE REQUIREMENTS

To be awarded the Master of Science degree, Teachers College requires A MINIMUM OF 32 *graduate* degree credits from Columbia University, of which AT LEAST 20 must be taken at Teachers College. Undergraduate degree credits may not count towards this requirement. The College also has a breadth requirement: at least 6 of your credits must come from outside your home program, but within Teachers College more broadly. These are referred to as "breadth credits".

Following the Program Requirements below will ensure that you also meet the College requirements for the degree.

To help you keep track, please use your Degree Audit (see p.14 below).
We also recommend that you begin using the Graduation Checklist in Appendix 1 during your first semester and update it with your advisor as you plan your coursework.

PROGRAM REQUIREMENTS

1. Core Courses

You must take the CORE COURSES listed below. Only BBSN 4001 and 4002 offer the opportunity for testing out; only BBSN 4005 offers the opportunity for equivalency from prior coursework. Previous undergraduate or graduate coursework in various areas may be petitioned to fulfill program requirements (discuss with your advisor), but credits cannot be transferred from other institutions (see Credit Transfer Policy in the TC Policy Library). In order to have a course from another institution "count" towards a program requirement, you must provide an original syllabus and evidence of your grade. A copy-paste of a catalog or web entry is not sufficient. Students who successfully waive a course requirement are exempt from taking that specific course; however, the credits associated with the waived course are not awarded. Students must still complete the minimum of 32 graduate credits required for the degree.

**To remain in good standing, you must achieve a grade of B or higher in these courses.

REQUIREMENT	COURSE NUMBER	COURSE TITLE	CREDITS	SEMESTERS OFFERED	NOTES
FOUNDATIONS (Take both courses, or test out)	BBSN 4001	Foundations of Neuroscience 1: Anatomy & Physiology**	3	Fall	You may test out of the Foundations sequence if you have substantial neuroscience background. Please see the Foundations instructor for information. ***Typically the deadline for testing out is July 31st prior to the fall semester.
	BBSN 4002	Foundations of Neuroscience 2: Systems**	3	Spring	
RESEARCH METHODS (Take this	BBSN 4005	Research Methods in Neuroscience**	3	Fall	You may pass out of Research Methods if you already took a suitable similar course and

course, or prove equivalency)					achieved a grade of B or higher. Please provide a syllabus and your grade to the instructor for a decision.
INTERSECTIONS (Take at least one of these)	BBSN 5007	Neuroscience Applications to Education	3	Fall and spring	Usually you would take an intersections course AFTER you complete or test out of the Foundations sequence
	BBSN 5199	Neuroscience Perspectives for Educators	3	Spring	
CAPSTONE: THESIS OR COMPS (Pick one)	BBSN 5500	Neuroscience and Education Thesis	3	Spring	Take this course in your **last spring**. It should NOT be taken with any other concurrent coursework. This course carries full time equivalency, and you are expected to engage in full time research while registered.
	BBSN 5199	Educational Neuroscience Integrative Review	3	Fall and Spring	Or, take this course in your last full semester.

2. In-Program Electives

You must take AT LEAST 9 CREDITS (three courses) of electives within the Neuroscience and Education Program. Our current elective offerings are listed below; these may change from time to time.

COURSE NUMBER	COURSE TITLE	CREDITS	SEMESTERS TYPICALLY OFFERED
BBSN 5000	EEG Lab Methods	3	Spring
BBSN 5003	Cognitive Neuroscience	3	Spring
BBSN 5005	Evaluation of Neuropsychological Instruments for Research	3	Fall
BBSN 5010	Neuroscience of Reading	3	Fall
BBSN 5070	Developmental Cognitive Neuroscience	3	Summer A
BBSN 5152	Neuroscience, Ethics and the Law	3	Fall
BBSN 5193	Neuroscience of Adversity	3	Spring
BBSN 5122	Psychoneuroimmunology & Ed	3	Spring
BBSN 5022	Eye Tracking Lab Methods	3	Summer A
BBSN 5055	Neuroscience of Adolescence	3	Spring

For most students, the Core Courses sequence (15 credits) plus the Electives minimum (9 credits) will

add up to 24 credits (thus exceeding the required minimum within BBSN).

3. Breadth Course Requirement

You must take at least 6 breadth credits. BREADTH COURSES are within Teachers College, but outside of BBSN.

For students who do not have substantial background in psychology, statistics or data handling, we recommend that breadth courses are taken in those areas.

Some suggested breadth courses are listed below. Almost any course outside of the BBSN listings could satisfy the breadth requirement, but there are a few exceptions (also see point #7 below: *Excluded Courses*). In some cases, instructor permission is required; some courses are limited to students in clinical or teacher training progressions; and some courses are not suited for our program. Always consult with your advisor first.

COURSE NUMBER	COURSE TITLE	CREDITS	SEMESTERS OFFERED	NOTES
STATISTICS AND DATA HANDLING				
HUDM 4120	Basic Concepts in Statistics	3	Fall and Spring	
HUDM 4122	Probability and Statistical Inference	3	Fall and Spring	
HUDM 5026	Intro to Data Analysis in R	3	Fall	Pre-req: HUDM 4122 or equivalent. Contact instructor.
HUDM 5122	Applied Regression Analysis (Advanced)	3	Spring	Pre-req: HUDM 4120 or 4122.
HUDM 5123	Linear Models and Experimental Design (Advanced)	3	Spring	Pre-req: HUDM 5122 or 5126.
HUDM 5126	Linear models and regression analysis	3	Fall	
PSYCHOLOGY AND RELATED AREAS				
HUDK 5024	Language Development	3	Fall	
HUDK 4023	Developmental Psychology: Adolescence	3	Fall	
HUDK 5023	Cognitive Development	3	Spring	
HUDK 4027	Development of Mathematical Thinking	3	Spring	
HUDK 4020	Theories of Human Development	3	Fall	
HUDK 4022	Developmental Psychology: Childhood	2 or 3	Spring	
HUDK 4035	Technology and Human Development	3	Fall	
HUDK 5121	Children's Social and Emotional Development in Context	3	Spring	
HUDK 5037	Psych of Children's TV	3	Spring	
HUDK 5040	Developmental Psychopathology: Atypical Contexts	2 or 3	Spring	
HUDK 5029	Personal and Social Development	3	Spring	

COURSE NUMBER	COURSE TITLE	CREDITS	SEMESTERS OFFERED	NOTES
	across the lifespan			
HUDK 5120	Development of Creativity: Case Study Methods	2 or 3	Spring	
HUDK 4015	Psychology of Thinking	3	Spring	
HUDK 4029	Human Cognition & Learning	2 or 3	Spring	
HUDK 5011	Cognition of Social and Emotional Learning	2 or 3	Spring	
HBSK 5096	Psychology of Memory	3	Fall	
HUDK 5025	Spatial Thinking	3	Fall	
HUDK 5030	Visual Explanations	3	Spring	
HUDK 4080	Educational Psychology	3	Spring	
HUDK 5035	Psychology of Media	3	Spring	
HUDK 5125	Cross Cultural Psychology	3	Fall	

NOTE: although we check all listings each year, course offerings do change. ***Please always check current availability*** through the course schedule search, and consult with your advisor if considering an elective or breadth course not listed here.

4. Additional Credits

For most students, the Core Courses, Electives, plus the Breadth requirement, will add up to 30 credits. This leaves at least 2 more credits to meet the minimum for the degree. These credits can be ***additional electives, additional breadth courses***, or Practical Training and Independent Study (PTIS) credits (see # 6 below).For most students, the Core Courses, Electives, and Breadth requirements will total 30 credits, leaving at least 2 additional credits needed to meet the 32-credit minimum for the degree. These additional credits may come from N&E electives, breadth courses, Practical Training and Independent Study credits, or courses taken at Columbia outside of TC. Always consult with your advisor.

5. Capstone

One capstone experience is required for graduation: either the Thesis or the Comprehensive Exam ("Comps"). **These courses are graded Pass/Fail, and are taken near the end of your program.**

5a. Thesis

Detailed requirements for the thesis, and guidance and support during the writing process, are provided through the Neuroscience and Education Thesis course (BBSN 5500, 3 credits) which must be taken in the last spring semester before graduation. The thesis course holds full-time equivalent status at the College. This means that, if you are registered ONLY for the Thesis course in your final semester, you are still considered a full-time student. It also means, importantly, that ***you are expected to work full time on the research and writing activities that will support your thesis development. WE DO NOT RECOMMEND STUDENTS TAKE ADDITIONAL COURSE WORK WHILE ENGAGED IN THE THESIS COURSE.***

The thesis document constitutes a summative assessment, demonstrating your learning throughout the program. The thesis usually takes one of these forms:

1. A systematic review of literature pertaining to a specific area of neuroscientific research. We follow PRISMA guidelines for systematic reviews and seek to conduct replicable, comprehensive, theoretically-grounded reviews that contribute to a deeper understanding of the empirical evidence.

2. A detailed proposal for a future experimental approach to some question of interest in educational neuroscience. This kind of thesis is an in-depth explication of experimental work that could form the basis for a future PhD experiment or grant proposal.
3. In some exceptional circumstances, the thesis can take the form of an empirical report of experimental work. Consult with your thesis director if you are considering this option; their decision is final. Strict criteria must be met for this exception to apply:
    - The experimental work should have been undertaken, at least in part, directly by the student. For example, if you have been working in a lab during your program, and have been involved with data collection in an experiment, you may consider an empirical report.
    - The student must have the requisite permissions to work with the data. This may require institutional permissions for data sharing, and/or IRB approvals. Consult with the thesis director on your specific circumstances.
    - The data to be reported must ***already have been collected*** and ***at least partially analyzed*** by the start of the thesis semester. Experiments currently in progress will not be considered, due to constraints on the time available for thesis writing.

The Thesis Course is designed to guide you through identifying a topic for your thesis, determining which type of thesis is best for you, and the actual process of writing. We follow APA style and format, and every student engaged in the thesis course experiences an intensive semester that is focused on research and scientific writing.

5b. Comps Review and Exam

The Educational Neuroscience Integrative Review (BBSN 5199) is the capstone experience for students who elect the non-thesis pathway to completion of the M.S. in Neuroscience and Education. The course provides students with a structured opportunity to consolidate, integrate, and apply the knowledge and skills acquired throughout your master's curriculum.

Students will revisit the core concepts, theories, and methods introduced across the required curriculum, including Foundations of Neuroscience, Neuroscience Research Methods, and the Intersections coursework. Students will also review material from their elective coursework and consider how these areas contribute to a coherent understanding of educational neuroscience.

The course culminates in a comprehensive written examination consisting of two components:

- **Foundational Knowledge Examination**: A multiple-choice examination assessing mastery of the core neuroscience, research methods, and foundational concepts expected of all graduates of the program.
- **Integrative Written Examination:** An open-book, in-person written examination designed to assess students' ability to synthesize, evaluate, and apply knowledge across the curriculum. This component includes short-answer and essay questions requiring critical analysis and integration of concepts from multiple areas of study.

The written exam emphasizes higher-order thinking, rather than memorization. Students are expected to demonstrate an ability to critically evaluate neuroscientific evidence, integrate findings across disciplines, and apply neuroscience concepts to questions relevant to education and human development.

Students who do not successfully complete one or more components of the examination will have an opportunity to repeat the relevant component during the same semester.

6. Optional: Practical Training and Independent Study

PTIS courses are BBSN 4904 (summer and fall) / BBSN 5904 (spring), and can be taken for 0-3 credits. The PTIS course allocation is for students who undertake a significant practical learning component during their program. For example, if you volunteer in a lab, or if you attend external trainings such as fMRI training at the Martinos Center, you may wish to have this reflected on your transcript as a practicum experience. For international students, the PTIS registrations are required if you undertake Curricular Practical Training. This should be discussed with your advisor and, as relevant, the Office of International Scholars and Students (OISS).

- If you are working on a project with a faculty member within the program, and wish to take PTIS credits to reflect this, you should develop a specific and clear plan for the experience and make sure this is approved by your advisor.
- If you are working in a lab for PTIS credits, please see the Program Policy on PTIS (Appendix 2).
- If you are planning CPT, please see the Program Policy on CPT and OPT (Appendix 3).
- The number of credits associated with PTIS registration will reflect the hours you are working and your needs for registration, at the discretion of your academic advisor and in consultation with your independent study supervisor. Please review the TC Credit Hours Policy, accessible via the Policy Library here.
- If you are undertaking the Martinos Center fMRI training (see "More Resources" below), you may register for 0 or 1 credit of PTIS (BBSN 4904), under the section operated by your academic advisor. Please see your advisor if you wish to add this registration to your transcript.

7. Excluded courses

- Do not register for Brain and Behavior I or II (BBS 5068, 5069) for intro courses, since these are not tailored for neuroscience students.
- Because courses vary considerably in their emphasis, depth, and use of neuroscience content, the presence of neuroscience or brain-related material does not necessarily mean that a course is appropriate for achieving program or personal learning goals. Students should discuss course selections with their advisor in advance to ensure that they are consistent with the program's academic expectations, degree requirements and student goals.

MORE RESOURCES

Websites for Registration and Course Selection

- **Teachers College Programs A-Z**
- **Teachers College Course Search (updated every semester)**
- **Columbia University Directory of Classes**

Note: For courses taken at Columbia, only 4000 level (graduate) classes and above can count towards program requirements.

Degree Audit

The College maintains an online Degree Audit system that gives you a way to monitor your progress towards the degree. You can access your own degree audit through your TC Portal. Please check this regularly - it is your MAIN RESOURCE for tracking requirements and progress!

In reviewing your degree audit, you may see a course listed as "unapplied." This generally means that the system has not assigned the course to a specific degree requirement. If you see an unapplied course, discuss it with your advisor to determine how it should be applied toward your degree.

Neuroscience and Education Research Guide

- The Gottesman Libraries manages the Neuroscience and Education Research Guide, that provides ideas and support for neuroscience-based research. Here you will find links to relevant peer-reviewed journals, ideas for tracking references, and much more.
- Our subject librarian is **Ava Kaplan**. You can book a research consultation with Ava through the Neuroscience and Education Research Guide web page.

The Synapse

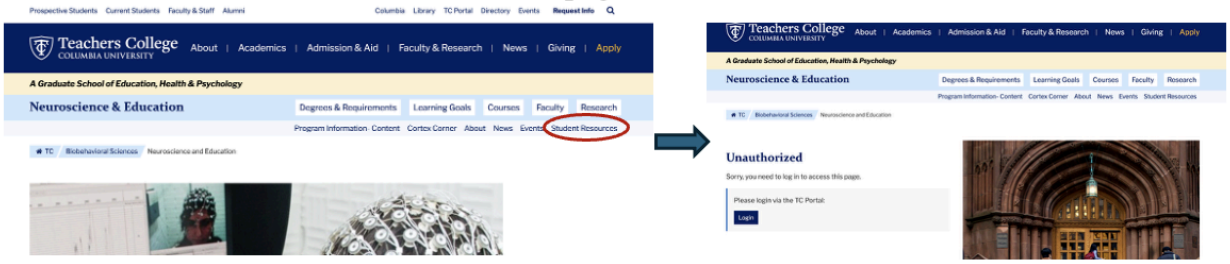
The Synapse is your student organization, established and run by members of the program. Each semester they organize talks and activities, and support connections among the student community and the TC and Columbia communities - and beyond. Get involved!
Facebook: https://www.facebook.com/groups/386945710620299/ ;
Discord: https://discord.gg/TarRgtCZ

Getting started in Labs / Research

Many of our students gain volunteer or other experience in research labs at TC. Columbia or elsewhere during their program. With contributions and advice from some of our past students, we put together this guide to help you get started in research.

Student Resources Available through the Neuroscience & Education program webpage

From the Neuroscience & Education Homepage, Click Student Resources



Sign-in from your TC account to access helpful resources!

Training in Neuroscience Methods

We offer two in-program courses for training in widely-used methods in cognitive neuroscience: BBSN 5000 EEG Lab Methods, and BBSN 5022 Eye-Tracking Lab Methods. We do not have on-site capabilities for fMRI training. However we strongly recommend the excellent functional MRI Visiting Fellowship training experience offered as a five day residential or Zoom course at Massachusetts General Hospital, by the Martinos Center. If you register for the fMRI training, you may wish to also register for BBSN 4904 (Practical Training and Independent Study) so that this experience is reflected on your transcript. Please discuss with your advisor if you wish to do this. *Please note that Teachers College cannot offer financial support to attend the Martinos fMRI fellowship, as this is completely external to our institution*.

Frequently Asked Questions

Almost all of your questions will have been answered in this program handbook! Make sure you read it carefully.

Here are a few additional questions that we often get.

Who is my advisor?

Your academic advisor will be either Dr. Duman, Dr. Levinson, or Dr. james. Advisor assignments will be finalized by September 1st. Your academic advisor assignment will be listed at the top of your Degree Audit. Any of us are happy to answer questions, though!

I am working during the semester, and find my schedule clashes with a class I want/need to take. Can the classes be recorded for me?

Our program is designed to be mainly in-person. Most of our courses are designed for synchronous, in-person engagement. This is why much of our programming happens in the evenings.

However, we have always worked to support students from a diverse range of backgrounds and circumstances, so *some* program professors might be willing to record classes and / or make other accommodations, on a temporary basis, if some *exceptional circumstance* arises. If you find yourself in this situation, please contact the course instructor directly and let them know what your situation is and what you would need. Keep your advisor in the loop, too!

How do I get involved in research?

Many of our students gain volunteer or other experience in research labs at TC, Columbia, or elsewhere during their program. Start by getting online and looking around the city for labs that are doing work of interest to you. Then contact those labs!

It can be better to contact a lab manager, or a postdoc, rather than reaching out to a lab director in the first instance. Try to figure out from the website who is the person helping with day-to-day lab operations. You may need to be persistent.

When reaching out to a lab, you may want to mention that you are a student in the Neuroscience and Education program. This can help distinguish your inquiry by providing context for your interest in research and indicating that you are actively pursuing training in the field. Also think about what you have to offer that lab. For example, do you speak several languages? Do you have prior research experiences or skills? Can you code? Have you worked with children? Try to let them know how you can help with their work, rather than just asking for them to help you.

With contributions and advice from some of our past students, we put together this guide to help you get started in research.

Can I take classes at Columbia (or Barnard, or the Medical School)?

Yes, with some conditions. Remember, you must take AT LEAST 20 credits here at TC (out of the 32 minimum required for the masters program). Our Core Courses sequence plus Capstone adds up to 15 of those credits, and you are also required to take 6 breadth credits here at TC; plus the in-program

electives. In practice this means that taking courses at Columbia will probably take you over the required minimum of 32 credits. Which is certainly permitted!

You can also discuss with your advisor whether some specific Columbia course could count as an elective. *NOTE THAT COLUMBIA COURSES DO NOT COUNT AS BREADTH CREDITS* (these must be taken at TC but outside of your home program).

If you do decide to take a course at Columbia, there are some things you should know:

- Only 4000-level and above can count towards a graduate degree;
- First discuss the course with your advisor, and then - with their approval - reach out directly to the course instructor to see if you could be accepted;
- If you have both your advisor and the instructor on board, then you must complete cross-registration procedures through the registrars at TC.

As ever, keep your advisor informed! They can help you through the process.

Can I take a leave of absence?

We know that life can throw unexpected curveballs at times. However, taking a leave from the program may affect not only your academic progress but health care coverage, financial aid, housing, and immigration status. If you are considering a leave, please FIRST discuss with your advisor, and then also consult will all other appropriate offices at Teachers College, including but not limited to Financial Aid, Office of International Scholars and Students (for international students), Student Health and Wellness (concerning insurance coverage) and the Office of Residential Services (if you are in College housing). For more information see the College Policies on *Continuous Enrollment* and on *Leaves of Absence*.

Is there a PhD program in neuroscience at TC?

Not yet! Many of our students go on to doctoral studies at Columbia or at other institutions. The good news is that a doctoral program in Educational Neuroscience is currently under development here at TC. We will keep you posted on progress, but it will likely take 2-3 years before we are in a position to accept students.

I need financial support. What can I do?

First please contact the Office of Financial Aid. They are your first stop for information about the possibilities for financial support The Office of Student Support and Advocacy has put together this list of some financial resources.

There may sometimes be limited financial support available through the College or the Program - you can always ask your advisor, as these opportunities change quickly. The Wendy M. Dressell Student Emergency Fund allocates up to $250 as a one-time emergency support - please see your Student Portal for relevant materials. The Student Portal also lists food insecurity resources.

The Program also sometimes has support for students who are attending conferences, presenting their work, or undertaking some other research-related experience. Announcements of these awards are usually made via the student list serve. If you find yourself needing to undertake travel directly related to your training, please discuss with your advisor who will help to determine what (if any) resources might be available.

What is the fastest I can complete this program?

The program is designed to be completed over two academic years (typically a fall, spring, summer, and a second fall and second spring). We do not typically recommend that students take more than 9 credits per semester (which is full time registration). Keep in mind, we want you to get the most out of your

experience and we want to send you on to your future experiences as a well-rounded scholar. This usually means taking your time, exploring different avenues, and building your experiences gradually.

What's the longest time I can take to complete the program?

Just as we don't want people to rush through the program, we also don't recommend taking too long! There is a time limit of five years from first registering to completing program requirements.

What other requirements are there for getting a master's degree at Teachers College?

TC requires students to meet requirements for continuous enrollment, candidacy, and recency. You can find more information through the registrar's website, and always check with your advisor if there is something you're not sure about.

Where can I find descriptions of the courses in the Neuroscience and Education Program?

You can find program-specific course listings here. Course listings are updated every year, for every program at the College, and are always available online in the TC catalog: https://www.tc.columbia.edu/catalog/.

APPENDICES

APPENDIX 1: 2026-2027 Neuroscience and Education Graduation Checklist

(This checklist is for planning purposes only. It does not substitute for the Degree Audit or the registrar's review.)

	# of credits	Semester Taken (or substitution info) and grade
Core Courses (must take or substitute all of the following)		
BBSN 4001 Foundations of Neuroscience 1: Anatomy & Physiology	3	
BBSN 4002 Foundations of Neuroscience 2: Systems	3	
BBSN 4005 Research Methods in Neuroscience	3	
BBSN 5007 Neuroscience Applications to Education	3	
In-Program Electives (minimum 9 credits, 3 courses)		
BBSN 4904 (Fall) Practical Training and Independent Study (if taken)		
BBSN 5904 (Spring) Practical Training and Independent Study (if taken)		
TOTAL BBSN CREDITS (must add up to at least 20)		
Breadth Courses (minimum 6 credits, 2 courses)		
Capstone Course (3 credits, choose one)		
BBSN 5500 Educational Neuroscience Thesis		
BBSN 5199 Educational Neuroscience Integrative Review		
TOTAL CREDITS (must add up to at least 32)		

Checklist reviewed and approved by advisor:

Advisor Signature _____ **Date** _____

APPENDIX 2: POLICY ON LAB EXPERIENCE FOR PRACTICAL TRAINING AND INDEPENDENT STUDY (PTIS) CREDITS

This policy is a living document. For the most current version, please visit https://docs.google.com/document/d/1SCVPuM1iUC4U90121ykStb4XQUGBD-z-fPDRA9xcPUc/edit?usp=sharing

NOTES:

- *"Internal Labs"* or *"Program Labs"* are those directed by program faculty members: the NEED Lab (Dr. Noble) and the NCLLab (Dr. james).
- *"External Labs"* means those outside the program, including other labs in Biobehavioral Sciences.
- The *"sponsor" or "supervisor"* of the independent study experience is a member of the host lab, usually the faculty member in charge.
- *"Advisor"* refers to the TC faculty member who is overseeing the independent study experience and is responsible for inputting the grade at the end of the semester; this will usually be your academic advisor.

This policy applies to "Practical Training and Independent Study" (PTIS) credits taken by master's students in the Neuroscience & Education program, that are based on a lab experience. PTIS credits may also be used for non-lab experiences, sponsored and supervised by a faculty member. Always discuss with your advisor.

- A student wishing to engage in independent study in a lab either within or outside of the Program must have a program faculty member willing to sponsor the independent study and to ensure that it is graded and monitored. For an external lab experience, this will usually be the student's advisor. For a program-internal lab experience, this will usually be the director of that lab.
- For external labs, the advisor must be in contact with the student's direct supervisor at the hosting lab. That may be a PI or a postdoc or PhD student, or someone who is professionally engaged with the host lab who has a master's degree or higher. It cannot be another master's level student, or someone with an undergraduate qualification only, unless there is some exceptional reason to consider an alternative (e.g. a highly skilled fMRI tech).
- For external labs, the advisor should ask the host lab sponsor at the start of the independent study semester to set goals for the student, to be willing to communicate about their progress and contributions during the semester, and to be willing to suggest a grade for the independent study at the end of the semester. Only if the advisor and the supervisor agree on this, can the independent study be approved.
- Depending on student needs and the scope of work and number of hours to be completed, the independent study may be for 0-3 credits per semester. This should be arranged by the advisor and is at their discretion. Review the TC Credit Hours Policy via the TC Policy Library. As a guideline, 1 credit is *at least 45 hours* of supervised independent study. During a regular semester, therefore, one credit would reflect a minimum of 3 hours per week.
- **A maximum of three credits of PTIS may count towards the required 32 credits for graduation from the Master of Science degree program.** No more than 6 credits of independent study should be allocated per student during their program.
- Any student undertaking independent study, either internally or externally to the program, should first complete at least Neuroscience Research Methods (BBSN 4005) and Foundations of Neuroscience 1 (BBSN 4001; passing the waiver exam or having an approved course substitution also meets this requirement). Depending on the sponsor of the independent study, other

coursework may also be required (e.g., Dr. james usually requires EEG Lab Methods for people who undertake independent study in her lab).

Each independent study experience is different, and flexibility may be required. Always discuss with your advisor before engaging in independent study.
You will need approval from the relevant faculty member to register for BBSN 4904 or 5904 credits. See section numbers below.
The course numbers for independent study are important, so make sure you are registering correctly:

BBSN 4904 = Fall independent study. Register for the appropriate section:
Section 001 - Dr. james
Section 003 - Dr. Noble
Section 004 - Dr. Levinson
Section 005 - Dr. Olivera

BBSN 5904 = Spring independent study.
Section 001 - Dr. james
Section 003 - Dr. Levinson
Section 004 - Dr. Noble
Section 005 - Dr. Olivera

BBSN 6904 = **DOCTORAL LEVEL ONLY.** Master's level students should not be registering for this course number.

For summer sessions, BBSN 4904 may be available. Section numbers may differ.

APPENDIX 3: POLICY ON CPT AND OPT FOR INTERNATIONAL STUDENTS

Disclaimer: the information contained here is intended as a guide for students in the Neuroscience and Education program at Teachers College, Columbia University only. It does not supplant guidance from the Office of International Scholars and Students (OISS), who are the final arbiters of all matters related to CPT, OPT, and other aspects of international student status.

This policy is a living document. For the most current version, please visit https://docs.google.com/document/d/1gRv82yN9WoWXvPQp2hIYPxs0-OQMQajd/edit?usp=sharing&ouid=105431160661077113377&rtpof=true&sd=true

1. What are CPT and OPT?

CPT (Curricular Practical Training): Work authorization for current students to engage in paid or unpaid positions outside of the Columbia system, such as internships or research assistantships, as part of their academic program. CPT must be directly related to the field of study and requires a relevant credit-bearing registration.
OPT (Optional Practical Training): Work authorization for students before or after the end date of the Form I-20 to gain practical experience in their field.
Standard OPT: up to 12 months
STEM OPT extension: additional 24 months

CPT and OPT are governed by U.S. immigration regulations and OISS, not the academic program. Students must obtain authorization from OISS before beginning any work.

Program approval ≠ work authorization.

2. CPT in the N&E Program

If you are using CPT, you must be registered for Practical Training and Independent Study (PTIS) as follows:

- Summer A or B (not both): BBSN 4904, 1 credit
- Fall: BBSN 4904, 1 credit
- Spring: BBSN 5904, 1 credit

Independent study courses are not repeatable indefinitely. You may take a maximum of two iterations of BBSN 4904, and one iteration of BBSN 5904, for a total of three credits of CPT during your program. On your degree audit, PTIS credits used for CPT will be applied under the “additional elective” requirement.

PTIS Requirements

Students engaging in CPT-related research must comply with the N&E independent study policy while registered for BBSN 4904 or BBSN 5904:

- You must have a TC faculty advisor overseeing the experience and communicating with the external lab supervisor
- Your supervisor must help set goals and evaluate performance
- There is a maximum of 3 credits total (1 credit each: BBSN 4904 Summer A OR Summer B (not both); BBSN 4904 fall, BBSN 5904 spring)
- Engaging in PTIS or CPT usually requires prior completion of BBSN 4001 Foundations 1, BBSN 4005 Research Methods. Hence, students engaging in CPT will usually be entering the second year of their program

CPT AND OPT FAQs

1. **Do I need CPT for every lab or research position?**

No. If you are working in a TC, Columbia, Barnard, or Zuckerman lab, this is generally considered internal to the university and does not require CPT. If you are working off-campus or for an external organization, CPT may be required. Always confirm with OISS.

2. **Do I need to register for PTIS (BBSN 4904/5904) every time I work in a lab?**

No. PTIS registration is only required if you want academic credit, or if it is needed to support CPT authorization.

3. **If I am using CPT, do I have to register for PTIS?**

Yes. If you are using CPT, you must be registered for a relevant course:
Summer A or Summer B (not both): BBSN 4904 (1 credit)
Fall: BBSN 4904 (1 credit)
Spring: BBSN 5904 (1 credit)

4. **Can I take PTIS every semester?**

No. There is a limit: Maximum 3 total PTIS credits tied to CPT. This typically corresponds to one summer session (either summer A or summer B, but not both), one fall session, and one spring session. Plan accordingly.

5. **I'm working in a lab at TC / Barnard / the medical center / Zuckerman. I know that is considered on-campus activity, but I want it to count on my transcript. Can I register for PTIS even though I am not using CPT?**

If you are working in an on-campus lab, you do not need CPT. However, you may still choose to register for PTIS (BBSN 4904/5904) if you would like your work to be reflected on your transcript. To do so, you must have a TC faculty advisor willing to supervise and evaluate your work, and you must define a clear scope of work and expected deliverables. Follow the Program PTIS Policy.
Keep in mind: PTIS is optional in this case, but PTIS credits still count toward the overall limits for independent study in the program. And, registering for PTIS does not change your work authorization status (i.e., it does not convert on-campus work into CPT). If you are unsure whether your position qualifies as on-campus activity, check with OISS before registering.

6. **I'm planning to work in a lab over the summer. Do I need to register for CPT or PTIS?**

Not necessarily. If you are working in a TC/Columbia lab, you do not need CPT or PTIS registration. If you are working externally and using CPT, you will need CPT authorization and PTIS registration (1 credit per semester) *before beginning work*.

7. **Does unpaid work require CPT?**

Sometimes. Just because work is not paid, it may not automatically be permitted. If the work is structured, supervised, and resembles employment, then CPT may still be required. *Always check with OISS, with your academic advisor, and with your site supervisor before starting.*

8. **What happens if I start working without CPT authorization?**

This can create serious visa issues. You must obtain OISS approval *before beginning any work*.

9. **Who decides whether I need CPT?**

OISS decides whether CPT is required and authorized. Your advisor confirms academic relevance. Your program does not authorize CPT.

10. How many hours can I work under CPT?

Part-time: up to 20 hours/week; Full-time: over 20 hours/week. It's important to remember that full-time CPT can reduce your eligibility for OPT after your program ends. Also keep in mind that you are expected to be engaged with your studies, so full-time work outside of your academic commitments is generally not possible. Always discuss with OISS and your advisor before committing to full-time CPT**.**

11. Will CPT affect my OPT?

Part-time CPT does not affect your OPT allowance. However, if you engage in 12 months or more of full-time CPT, you will not be eligible for OPT at all.

12. What is OPT and when do I apply?

OPT stands for Optional Practical Training. There are two kinds of OPT: pre-completion, and post-completion.

Post-completion OPT allows you to work after completing degree requirements. You would typically apply for this in the last semester of your program of study. The standard allowance is one year (12 months) after you graduate. However, as of June 2026, the Neuroscience & Education program is STEM-designated (CIP 42.2706), which extends the post-completion OPT allowance to 36 months.

In some cases, OPT can be taken while you are still working towards degree requirements. This is called **pre-completion OPT.** For this, you should apply as soon as possible, because approval for pre-completion OPT can take many weeks. If you engage in pre-completion OPT, your post-completion allowance will be reduced. Please discuss with OISS to determine how much OPT would be lost, as the regulations may differ.

As always, consult with OISS, your advisor, and your site supervisor if you are considering either pre-completion or post-completion OPT.

13. Do I need to think about CPT in my first semester?

Usually no. Most students explore labs and get their coursework underway first, then begin formal CPT later (usually Year 2 of the program).

14. What should I do if I'm not sure?

- Ask yourself: Is this experience on-campus, or external?
- Am I being paid or formally supervised?

The answers to these questions will help you understand whether CPT is needed. Any external experience that involves payment and/or formal supervision will likely require CPT authorization. Always check with OISS and with your advisor.