

M.S. Program in Cognitive Neuroscience Thesis Overview

2023-2024

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M.S. Program in Cognitive Neuroscience Thesis Overview

The thesis is the culmination of the M.S. in Cognitive Neuroscience degree. We recommend planning your thesis research as early as possible. Meeting dates and times are arranged between the student and advisor/faculty mentor. However, the thesis approval process is expected to take approximately *six* weeks.

If you have further questions about the thesis or about this guide, send an email to cogneuro@gc.cuny.edu.

Who is Eligible to Advise?

The advisor/faculty mentor you have been conducting your research with should advise you on your thesis. Ideally, students will approach their advisors well before any relevant deadlines and with a clear idea of the thesis.

Thesis advisors must be members of the M.S. Program in Cognitive Neuroscience faculty at The Graduate Center. Entering students can use this <u>list of Cognitive Neuroscience faculty</u> as a resource to search for an advisor.

CNS 70900: Thesis Research (3 credits)

You should enroll in the CNS 70900: Thesis Research course in the last semester.

Course Description

The thesis research and manuscript enables students to integrate and synthesize the knowledge and data that they have acquired during their coursework and laboratory-based research. Students will work with an advisor to formulate a research question that will culminate into the master's thesis.

Although three readers (the advisor/faculty mentor, the second reader, and the Director) review the thesis, the advisor assigns the grade for CNS 70900: Thesis Research. In the event that you will not be able to deposit your thesis to the library following the semester during which you registered for Thesis Research, you should contact the M.S. Program in Cognitive Neuroscience at cogneuro@gc.cuny.edu. You will receive an incomplete (INC) for the Thesis Research course, and the INC will remain on your transcript until you contact your mentor to submit a grade change form during the following semester. If your mentor needs a form, your mentor should contact the M.S. Program in Cognitive Neuroscience at cogneuro@gc.cuny.edu. You do not need to register for the Thesis Research course again.

The Thesis | Prospectus

Ideally, the thesis should focus on the interests you have explored and the empirical research that you have conducted during your time in the program. Students are required to turn in a short (3-4 page) prospectus to the advisor (with a copy to cogneuro@gc.cuny.edu). Deadlines are set between you and your advisor/faculty mentor.

IRB Approval

If your research involves human subjects, please discuss your project with your advisor and with the CUNY Human Research Protection Program (HRPP) to determine whether your project requires IRB approval from The Graduate Center or your advisor's home campus. For more information, please visit The Graduate Center's CUNY Human Research Protection Program website. If you are part of the advisor/faculty mentor's IRB, you do not need to fill out a form.

Thesis Research Format

The thesis should be approximately 50-60 pages long—in other words; it should be as long as two or three term papers. It is sometimes useful to think in terms of two or three chapters. All completed theses should include a 250-word abstract. This abstract should summarize your research's main claims. Please consult the <u>Library's instructions for preparing and depositing theses</u>, which will explain the formatting expectations for the document.

General Thesis Research Format

The formal proposal will have the format of Title Page, Abstract, Introduction, Methods, Results, Discussion, References, and Appendices (*if appropriate*). Guidelines for the thesis text format and page sequence are available on the library's <u>website</u>. As for setting a tone in the thesis proposal, you should assume you have an audience of people interested in cognitive neuroscience who do not necessarily have a background in your research area. Assume, for example, the reader is another neuroscience major in a completely different specialty.

The neuroscience research paper should be in journal article format and should include each of the sections below. There is no page limit. Your paper should be grammatically correct, concise, and properly referenced. If you do not see it yourself, say it yourself, think it yourself, or do it yourself, reference it!

Paper Sections

Title	The title should be a concise description of the project.
Abstract	The abstract is a brief summary (approximately 250 words) of the project that you are working on—an overview.

Table of Contents and List of tables, illustrations, charts, figures and/or diagrams	Following a "report format," the table of contents should show the different sections of your proposal and the page numbers on which they begin.
Introduction	This section includes the questions that the project addresses and hypotheses. It should also include a well-referenced background that informs the reader about why the hypothetical questions are being asked. It should identify a gap in the current literature and discuss how the current study will address this gap. Furthermore, it should briefly describe the current study's methodology and should pertain to relevant literature. You should critically assess studies and indicate your clear understanding the project that you are working on.
Methods	The goal of this section is to allow other researchers to replicate your study. You should include detailed descriptions of your participants, materials, and procedures. Furthermore, you should include justifications. What techniques are being used to answer your research questions? Why are these techniques being used? What protocols are being used? How were subjects recruited? What are your study's experimental and control groups? What is your inclusion and exclusion criteria? What materials were used? Why were these materials used (e.g., assessments, screen sizes)? You may include graphs and figures to help illustrate your methods.
Analysis	What data analysis techniques did you use to analyze your data?
Results	What data have you collected? You may include graphs and figures to help illustrate your findings. You should only present facts in this section; do not offer explanations for why you found certain results.
Discussion	Start this section by briefly summarizing your study, including hypothesis, methods, and results. What do the results mean to the questions that you set out to answer? How will this advance the field? What were your study's limitations? What further questions should be answered?
Reference List	List references that you have used.
Additional Tips	Think of your paper as a work in progress. Talk to people in your lab about your research. When you are just starting out in a lab, the most you may be able to complete is the introduction. However, you should be able to speculate on what the expected results are and then write how these results turn out and how they address the main questions of the research. Each semester that you work on the research, you should be able to add to the paper you are writing.

Library's Thesis Deposit Deadlines

There are three possible deadlines to submit your thesis because three degrees are conferred each academic year. To submit your thesis, you must be enrolled in the semester prior to your degree date:

2022-2023 Academic Year

For Degree	Enrollment Required	Deposit Required By
September 30, 2022	Spring 2022	September 15, 2022
February 1, 2023	Fall 2022	January 31, 2023
June 2, 2023	Spring 2023	April 28, 2023

2023 - 2024 Academic Year

For Degree	Enrollment Required	Deposit Required By
September 30, 2023	Spring 2023	September 14, 2023
February 1, 2024	Fall 2023	mid-January 2024 (exact date TBD)
May/June 2024	Spring 2024	late-April 2024 (exact date TBD)

These deadlines are set by the Office of the Registrar and are **not subject to change.** Your degree date will reflect the semester you were last enrolled in the program. For example, if you submit your thesis in February 2024, then your degree will say Fall 2023. Students should consult and follow the <u>Library's instructions</u> for preparing and depositing theses.

Library Contacts



Roxanne Shirazi
Contact:
Library - room 2304
The Graduate Center, CUNY 365 Fifth Avenue
New York, NY 10016
rshirazi@gc.cuny.edu
212.817.7069



Mason Brown

Contact:
Library - room 2317

The Graduate Center, CUNY 365 Fifth Avenue
New York, NY 10016

mbrown3@gc.cuny.edu

212.817.7066

https://libguides.gc.cuny.edu/CogNeuro

Approval Process for the Thesis | Overview

The Thesis requires the approval of <u>your advisor</u> and two evaluators: the second reader* and <u>the</u> <u>Director</u>. Throughout the approval process for the thesis, you will need the following documentation:

- a. Thesis Prospectus Form
- b. Cognitive Neuroscience Thesis Evaluation Form
- c. Cognitive Neuroscience Approval of Revised Thesis Form (in case of revisions)

Once your advisor has reviewed and approved your thesis, at least *four* weeks before the <u>library</u> <u>deposit deadline</u>, your advisor should send an email to <u>cogneuro@gc.cuny.edu</u>, indicating their approval of your thesis. The email should include:

- a. a properly formatted thesis (in Word)
- b. the Cognitive Neuroscience Thesis Evaluation Form (with only the first half completed)

Advisors must submit approved theses no less than **four** weeks before the library deposit deadline, or the thesis may not be reviewed on time by the Second Reader. This deadline will ensure that theses with revisions be addressed and, therefore, meet the <u>deposit deadline</u>.

Once your mentor has informed the program of their approval, the program will assign your thesis to a second reader. **DO NOT DIRECTLY EMAIL YOUR THESIS TO THE SECOND READERS.**

After reviewing the student's thesis, the second reader should submit the <u>Cognitive Neuroscience Thesis</u> <u>Evaluation Form</u> to the student and advisor with a cc to <u>cogneuro@gc.cuny.edu</u>.

In the event of major or minor revisions, the student is to send the revised thesis and the <u>Cognitive Neuroscience Approval of Revised Thesis Form</u> to the Second Reader (*major revisions*) or advisor (*minor revisions*). The Second Reader (major revisions) or advisor (minor revisions) must submit the <u>Cognitive Neuroscience Approval of Revised Thesis Form</u> to <u>cogneuro@gc.cuny.edu</u> and cc the student. The second reader's and mentor's approval of the final draft must be sent via email to <u>cogneuro@gc.cuny.edu</u>.

The Director will send an approval email to the dissertation/thesis librarian, Roxanne Shirazi (rshirazi@gc.cuny.edu). Once the Director has sent his approval, Roxanne Shirazi will confirm receipt, and you will be able to deposit your thesis for library approval on CUNY Academic Works.

After 2-3 business days, the Dissertation Office will email you with a list of corrections (if necessary) and a link to review and confirm the final deposited version of your thesis. A final confirmation is sent to your Graduate Center email, and the library will notify the Office of the Registrar that you have completed your deposit.

^{*}For 2022-2023, either Dr. Robert Duncan or Dr. Tatiana Emmanouil will be the second reader. The second reader may be subject to change every year.

Approval Process for the Thesis | General Timeline

The following timeline should be considered in relation to thesis library deposit deadlines, as per the library's instructions for preparing and depositing theses. Please note that the deadlines below allow ample time for students to have their thesis reviewed and submit their thesis by the library's deposit deadline.

Step 1: Preparing for the Thesis Approval Process

Deadline	Deadline Goal(s)
Before Last Semester in the Program	Plan/conduct your thesis research
Last Semester in the Program	 Enroll in CNS 70900: Thesis Research Submit <u>Thesis Prospectus Form</u> Have your mentor review and approve your thesis Revise your thesis, as necessary Review <u>the library's instructions for preparing and depositing theses</u> Apply for graduation on <u>CUNYFirst</u> (consult the <u>GC Academic Calendar</u>) After you apply for graduation on <u>CUNYFirst</u>, the Registrar will notify Wanda Mercado, Assistant Program Officer (APO), of your plans for graduation, and she will email you an <u>Application for the Master of Arts/Science Degree</u>

Step 2: Thesis Approval Process | Evaluations

Deadline	Deadline Goal(s)
4 Weeks Before the Deposit Deadline	 Your mentor send an email to cogneuro@gc.cuny.edu, indicating their approval of your thesis. The email should include a properly formatted thesis (in Word) and Cognitive Neuroscience Thesis Evaluation Form (with only the first half completed).
3 Weeks Before the Deposit Deadline	Receive your <u>Cognitive Neuroscience Thesis Evaluation</u> <u>Form</u>

Step 3: Thesis Approval Process | Revisions and Approval

If your thesis is approved,

Deadline	Deadline Goal(s)
3 Weeks Before the Deposit Deadline	 Secure your mentor's approval via email to cogneuro@gc.cuny.edu Secure the second reader's approval via email to cogneuro@gc.cuny.edu Secure the Director's approval via email to cogneuro@gc.cuny.edu
2 Weeks Before the Deposit Deadline	 The Director will send an approval email to the dissertation/thesis librarian, Roxanne Shirazi Once the Director has sent his approval, create a CUNY Academic Works account, and deposit your thesis for library approval. Ensure that all graduation and thesis requirements have been met as per the library's instructions Complete the Thesis Checklist

If your thesis *needs revisions*,

Deadline	Deadline Goal(s)
3 Weeks Before the Deposit Deadline	 Make necessary revisions to thesis, as per the <u>Cognitive Neuroscience Thesis Evaluation Form</u> Send the revised thesis and the <u>Cognitive Neuroscience Approval of Revised Thesis Form</u> to the Second Reader (major revisions) or advisor (minor revisions)
2 Weeks Before the Deposit Deadline	 Receive the completed <u>Cognitive Neuroscience Approval of Revised Thesis Form</u> Secure your mentor's approval via email to <u>cogneuro@gc.cuny.edu</u> Secure the second reader's approval via email to <u>cogneuro@gc.cuny.edu</u> Secure the Director's approval via email to <u>cogneuro@gc.cuny.edu</u>
1 Week Before the Deposit Deadline	 The Director will send an approval email to the dissertation/thesis librarian, Roxanne Shirazi Once the Director has sent his approval, create a CUNY Academic Works account, and deposit your thesis for library approval. Ensure that all graduation and thesis requirements have been met as per the library's instructions Complete the Thesis Checklist

Approval Process for the Thesis | EXAMPLE Timeline: September 30, 2023 Degree

Step 1: Preparing for the Thesis Approval Process

Deadline	Deadline Goal(s)
Before Last Semester in the Program	Plan/conduct your thesis research
Last Semester in the Program	 Enroll in CNS 70900: Thesis Research Submit <u>Thesis Prospectus Form</u> Have your mentor review and approve your thesis Revise your thesis, as necessary Review <u>the library's instructions for preparing and depositing theses</u> Apply for graduation on <u>CUNYFirst</u> (consult the <u>GC Academic Calendar</u>) After you apply for graduation on <u>CUNYFirst</u>, the Registrar will notify Wanda Mercado, Assistant Program Officer (APO), of your plans for graduation, and she will email you an Application for the Master of Arts/Science Degree

Step 2: Thesis Approval Process | Evaluations

Deadline	Deadline Goal(s)
By August 18, 2023	 Your mentor send an email to <u>cogneuro@gc.cuny.edu</u>, indicating their approval of your thesis. The email should include a properly formatted thesis (in Word) and <u>Cognitive Neuroscience Thesis Evaluation Form</u> (with only the first half completed).
By August 25, 2023	Receive your <u>Cognitive Neuroscience Thesis Evaluation</u> Form

Step 3: Thesis Approval Process | Revisions and Approval

If your thesis is approved,

Deadline	Deadline Goal(s)
By September 1, 2023	 Secure your mentor's approval via email to cogneuro@gc.cuny.edu Secure the second reader's approval via email to cogneuro@gc.cuny.edu Secure the Director's approval via email to cogneuro@gc.cuny.edu
By September 8, 2023	 The Director will send an approval email to the dissertation/thesis librarian, Roxanne Shirazi Once the Director has sent his approval, create a CUNY Academic Works account, and deposit your thesis for library approval. Ensure that all graduation and thesis requirements have been met as per the library's instructions Complete the Thesis Checklist

If your thesis needs revisions,

Deadline	Deadline Goal(s)
By September 1, 2023	 Make necessary revisions to thesis, as per the <u>Cognitive Neuroscience Thesis Evaluation Form</u> Send the revised thesis and the <u>Cognitive Neuroscience Approval of Revised Thesis Form</u> to the Second Reader (major revisions) or advisor (minor revisions)
By September 8, 2023	 Receive the completed <u>Cognitive Neuroscience Approval of Revised Thesis Form</u> Secure your mentor's approval via email to <u>cogneuro@gc.cuny.edu</u> Secure the second reader's approval via email to <u>cogneuro@gc.cuny.edu</u> Secure the Director's approval via email to <u>cogneuro@gc.cuny.edu</u>
By September 15, 2023	 The Director will send an approval email to the dissertation/thesis librarian, Roxanne Shirazi Once the Director has sent his approval, create a CUNY Academic Works account, and deposit your thesis for library approval. Ensure that all graduation and thesis requirements have been met as per the library's instructions Complete the Thesis Checklist

Maintenance of Matriculation

Students who have completed the 32 credits for the degree but need an additional semester to complete the thesis may register for "Maintenance of Matriculation" (MM1) for a limit for 2 semesters.* This will allow students to maintain their enrollment status for thesis deposit. For more information, please refer to the M.S. Program in Cognitive Neuroscience's Student Handbook.

It is highly recommended students contact <u>The Office of Financial Aid</u>, as an additional semester may influence a student's financial aid. In addition, students should consult with the M.S. Program in Cognitive Neuroscience at cogneuro@gc.cuny.edu.

*If students need to register for an additional semester of MM1, they must contact the program.

Writing Resources

<u>Citation Managers</u>: The library provides instruction in the use of two citation managers, RefWorks and Zotero. Zotero, an open-source tool, is accessible after students leave the Graduate Center.

<u>Style Guides</u>: Although the M.S. in Cognitive Neuroscience does not require a specific citation style, you may consider using the APA style. However, we urge you consult the <u>Library's instructions for preparing and depositing theses</u> to ensure the proper citation style. Generally, theses should be consistent in the usage of whatever citation style is chosen.

Plagiarism | CUNY

CUNY regards acts of academic dishonesty (e.g., plagiarism,) as serious offenses against the values of intellectual honesty. The University is committed to enforcing the CUNY Policy on Academic Integrity. We will pursue cases of academic dishonesty according to University Academic Integrity Procedures. For more information, refer to CUNY's Academic Integrity Policy.

THESIS – FAQs

CNS 70900: Thesis Research

Do I have to enroll in CNS 70900: Thesis Research?

Yes, students are required to enroll in Thesis Research (CNS 70900) as part of the program's core requirements. It fulfills 3 credit hours. Students complete the M.S. in Cognitive Neuroscience by completing a master's thesis, which requires empirical data. The thesis research and manuscript enable students to integrate and synthesize the knowledge and data that they have acquired during their

coursework and research. For this course, students will work closely with their mentor to formulate a research question that will culminate into the master's thesis.

When should I enroll for CNS 70900: Thesis Research?

Students should enroll in Thesis Research in their last semester.

Does the thesis course count toward the thirty-two degree credits required for graduation?

Yes, the thesis research course CNS 70900 counts toward the 32 credits required for graduation.

Who assigns my grade for CNS 70900: Thesis Research?

Your mentor assigns a grade at the end of the semester.

How do I ensure that my mentor is on the list of instructors under CNS 70900: Thesis Research on CUNYfirst?

You should inform the program of your intention of enrolling in CNS 70900: Thesis Research a semester prior to enrolling in the course.

Do I have to complete my thesis during the semester I Enroll in CNS 70900 Thesis Research?

Ideally, you should complete your thesis during the semester that you enroll in Thesis Research (CNS 70900). If you do not complete your thesis during the semester, you will receive an INC for the course until you complete your thesis and your mentor submits a Change of Grade form, which is to be emailed to cogneuro@gc.cuny.edu. The Change of Grade form requires approval from the Director before the Registrar's Office posts the grade.

Mentors

Who is eligible to be a thesis mentor?

A thesis mentor must be a CUNY faculty member that has been approved to be on the M.S. Program in Cognitive Neuroscience faculty.

We draw exceptional professors from throughout The City University of New York. Prolific scholars and passionate researchers and teachers, their expertise spans neuroscience and psychology as well as mathematics, computer science, engineering, speech-language-hearing sciences, and the life sciences. Our professors are accomplished, experienced, and accessible to students.

Am I assigned a thesis mentor?

No, you are not assigned a mentor. When you began the program, you were asked to secure a faculty member as your mentor from a list of highly regarded, qualified instructors in our program. The program recommends matches between students and advisors based on their research interests and preferences, as well as by how many students each faculty member is able to accommodate into their labs. However, it is ultimately the students' responsibility to reach out to a faculty member and develop a student-to-mentor relationship with the instructor.

Thesis Guidelines and Deposit Procedures

You should start planning your thesis as early as possible as research is most often very time-consuming and may take unexpected turns (experiments do not go as planned, there is difficulty acquiring data, etc.).

Is there a document with thesis guidelines?

Yes, the Thesis Overview document provides detailed information on the process and timeline.

What is the Thesis Prospectus and when should the document be submitted?

The thesis prospectus allows for a thesis abstract and informs the program that you and your mentor are on track and will be submitting your thesis. The Thesis Prospectus must be completed before you submit your thesis and emailed to cogneuro@gc.cuny.edu.

Are there other thesis-related forms to complete?

Yes. Depending on the status of your thesis, you and/or your mentor are required to complete the following forms: Thesis Evaluation Form and Approval of Revised Thesis Form. Carefully read each form.

I completed my thesis, do I send it directly to the Director of the program?

No. You must have your mentor email cogneuro@gc.cuny.edu with the approved thesis. We will send the thesis to the second reader for review. You will be notified via email of the revisions to the thesis that are necessary. Upon completion of the revised thesis, you must email the final thesis along with the Approval of Revised Thesis Form to cogneuro@gc.cuny.edu.

Once the thesis is approved by the mentor, second reader and Director, now what?

The Director will email the Dissertation Librarian, Roxanne Shirazi, notifying the manuscript is approved and ready to deposit.

I deposited my thesis, do I receive a confirmation?

You will receive an email from the Dissertation Librarian, Roxanne Shirazi confirming receipt of the manuscript.

Graduation

How do I apply for graduation?

Until we receive further information, to apply for graduation, consult the library Dissertation and Theses: Deposit Procedure webpage for instructions. After you apply for graduation on CUNYFirst, the Registrar will notify the Assistant Program Officer (APO) of your plans for graduation, and she will email you an **Application for the Master of Arts/Science Degree**.

When do I apply for graduation?

For information on when to apply for graduation, please consult the library's deadlines and the Graduate Center Academic Calendar.

Is it necessary to file for an Application for the Master of Arts/Science Degree?

Yes, the application is certifying that a student has satisfied all the requirements for the degree including the thesis or will be satisfying all the requirements for the degree upon completion of the current semester including the thesis.

The form is sent to the Office of the Registrar as both a means to inform the student has completed or nearing the completion of the program's requirements and expected date of graduation.



M.S. Program in Cognitive Neuroscience Thesis Checklist (For Personal Use) The Graduate Center, CUNY

Name:	_
Mentor:	
Thesis Title:	_
Have you read the Thesis Overview? Have you submitted the Thesis Prospectus? Has your mentor approved your thesis? Have you submitted your thesis to the progrest Has your thesis been approved by the second Have you submitted your thesis to the library Have you applied for graduation on CUNYFir Will you complete the course requirements Have you completed the Application for the	es
	Core Courses
\square CNS 70001: Neuroscience I (4 credits), Ser	mester/Year
\square CNS 70002: Neuroscience II (4 credits), Se	mester/Year
\square CNS 70003: Cognitive Neuroscience (3 cre	edits), Semester/Year
\square CNS 70300: Neuroanatomy (3 credits), Se	mester/Year
\square CNS 70200: Research Methods in Cognitive	ve Neuroscience (3 credits), Semester/Year
\square CNS 70100: Statistics and CNS 70101: Sta	tistics Lab (4 credits), Semester/Year
\square CNS 70900: Thesis Research (3 credits), Se	emester/Year
Electives	: (3 electives – 8-9 credits)
☐ Elective 1,	(2 credits), Semester/Year
OR	(2 credits), Semester/Year
☐ Elective 1,	, (3 credits), Semester/Year
☐ Elective 2,	, (3 credits), Semester/Year
☐ Elective 3,	, (3 credits), Semester/Year