

DEPARTMENT OF
PSYCHOLOGY

Cognitive Neuroscience
Graduate Program Handbook



THE OHIO STATE UNIVERSITY

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PROGRAM OVERVIEW

The Psychology Department initiated a new graduate program in Cognitive Neuroscience, enrolling the first cohort of students in 2020. This cross-area training program is geared towards students who study the human mind and brain from a variety of perspectives, with a special emphasis on sophisticated training in neuroimaging methods and analysis. Faculty and students in the program have research interests which span a multitude of areas, including visual perception and cognition, memory and learning, computational cognitive neuroscience, neuroeconomics, social cognitive neuroscience, developmental cognitive neuroscience, and clinical cognitive neuroscience. The goal of the program is to bring together students from all of these areas to offer both breadth and depth of training in the practical and theoretical aspects of cognitive neuroscience, so that they can produce exciting new research and graduate with all the tools to be successful and independent cognitive neuroscientists.

Students will be exposed to training in a variety of research methods, including functional magnetic resonance imaging (fMRI), electroencephalography (EEG), and computational modeling. In addition to training in neuroimaging methods and analyses, students will also receive training in a theoretical domain of their choosing, including Cognitive Psychology, Developmental Psychology, Clinical Psychology, Social Psychology, Decision Psychology, etc.

The Cognitive Neuroscience Program offers 2 tracks:

- The **primary track** is for students admitted to the Psychology Department with the Cognitive Neuroscience Program as their primary program. More details are outlined below in the handbook, but briefly: students enrolled in this program are expected to complete a sequence of courses including a first-semester survey course titled Techniques & Topics in Cognitive Neuroscience; two semesters of Statistical Methods in Psychology, one neuroimaging experimental methods course (e.g., Intro to fMRI, Intro to EEG); one analysis methods course (e.g., Advanced fMRI Analyses, Model-based Cognitive Neuroscience, Seminar in Machine Learning Approaches to Social Cognitive Neuroscience), and at least two additional courses in a theoretical domain of their choosing (e.g., Cognitive, Developmental, Clinical, Social, Decision, etc). All students are also expected to attend the weekly CogNeuro brown bag series. Students in the program are expected to join a research lab and become involved in research from the moment they begin the program. During their first two years, students complete a first-year research project and then a Master's thesis. After successfully completing a candidacy examination at the end of the third year, students are admitted to a Ph.D. candidacy. An additional one to two years are typically spent completing the Ph.D. dissertation.
- Students enrolled in other graduate programs within the Psychology department can choose to complete a **concentration (minor)** in Cognitive Neuroscience. Course requirements include 3 courses offered through our area: Technique & Topics in Cognitive Neuroscience, two semesters of CogNeuro brown bag, and one additional course offered through the program.

Core Faculty Members (as of Fall 2020):

Julie Golomb (program head), Jasmeet Hayes, Scott Hayes, Ian Krajbich, Andrew Leber, David Osher, Ruchika Prakash, Zeynep Saygin, Brandon Turner, Dylan Wagner

PROGRAM REQUIREMENTS (PRIMARY TRACK)

This document outlines requirements for completion of the Ph.D. program in Cognitive Neuroscience offered through the Department of Psychology. Students in the Cognitive Neuroscience program are also subject to policies and procedures stated in the **Department of Psychology Graduate Program Handbook** and the university's **Graduate School Handbook**. All graduate students in the program are responsible for being familiar with the applicable contents of these documents. Both of those documents and other resources can be found at <https://psychology.osu.edu/graduate/current-students/resources>.

I. Choosing an Advisor

Each student in the Cognitive Neuroscience program will have an advisor with an appointment in the Cognitive Neuroscience program. The student's primary advisor must be one of the Core Faculty members listed above; students wishing to work with an Affiliate or unlisted faculty member must be either co-advised by a Core Faculty member or request special permission of the program. Initial matches will happen upon admission based on student interests and faculty availability. Prospective students are encouraged to contact potential faculty matches directly.

Students are permitted to petition the program faculty to change advisors. The most appropriate time to change advisors is following completion of the first-year project or master's thesis, but changes will be considered at other times on a case by case basis. Any advisor change should involve discussion between the student, the current and prospective future advisors, and the graduate studies chair or Cognitive Neuroscience program head. The Psychology Graduate Program Office must be advised of the change after it is approved.

II. Course Requirements

The overall program of study for each student is developed in consultation with the advisor. There are certain course requirements around which the program of study should be built:

- A. Psychology 6810 and 6811, Statistical Methods in Psychology I and II (the introductory graduate statistics sequence), required for all first-year Psychology students.
- B. Psychology 8860, Current Research in Cognitive Neuroscience (aka CogNeuro Brownbag). Graduate students in Cognitive Neuroscience must register for and attend Psychology 8860 each Fall and Spring semester pre-candidacy, and attend post-candidacy. This course is a research practicum in which faculty and students in the program give presentations on their work in its various stages. Each graduate student in the program is required to give a presentation each year sharing their ongoing research. The Brownbag also includes talks from external speakers, components on professional development, student-organized fMRI users workshops, and responsible research practice. A goal of this course is to ensure that every graduate student in the program is engaged in an active and productive research program, and to nurture a stimulating cognitive neuroscience community.

- C. Psychology 6880, Techniques and Topics in Cognitive Neuroscience. A one-semester survey course with a sequence of lectures and corresponding discussion sessions offering an introduction to essential techniques and topics in cognitive neuroscience. Students are expected to take this course fall semester of their first year.
- D. One neuroimaging experimental methods course to be selected from the following list: Introduction to fMRI (5425, taught every spring), Introduction to EEG (5621, taught every other fall).
- E. One analysis methods course to be selected from the following list: Advanced fMRI Analyses (6650, taught every fall), Model-based cognitive neuroscience (7695-Turner, taught on demand), Seminar in Machine Learning Approaches to Social Cognitive Neuroscience (7897-Wagner, taught on demand). (Note that some of these are topical seminars taught under shared/common course codes; if an instructor is listed, only that specific offering counts toward the requirement.)
- F. Each student must also choose a theoretical domain to specialize in, selected from the other areas within the psychology department (e.g. Cognitive Psychology, Developmental Psychology, Clinical Psychology, Social Psychology, Decision Psychology, etc). The minimum requirement for the CogNeuro program is 2 courses from the selected area: 1 of those courses can be that area's Brownbag seminar (if the student is enrolled for credit and fully participates both semesters), along with at least one additional course offered by that area (can include elective courses, see G below). Students are encouraged to pursue a formal concentration or minor in that program if available.
- G. Other electives. Students are encouraged to seek out other courses taught by Cognitive Neuroscience program faculty, and/or other courses in Psychology, Neuroscience, Statistics, Computer Science, etc. The following courses highlight a few suggestions: Developmental Cognitive Neuroscience (5628); Decision Neuroscience/Neuroeconomics (5870); Introduction to Computational Cognitive Neuroscience (5618); Cognitive Aging, Neurodegeneration, & Neuroplasticity (5089). Relevant topical seminars offered by Cognitive Neuroscience faculty are also often taught under common/shared course codes for other areas in the department, e.g. Attention & Cognitive Control (7695-Leber), Social Cognitive Neuroscience (7897-Wagner), Human Neuropsychology (8891-Prakash), Neural Dynamics of Decision Making (8890-Krajbich).

To summarize, the minimum required courses for the program are: statistics (2 semesters), Techniques & Topics in CogNeuro (1 course), CogNeuro Brownbag (6 semesters), experimental methods (select 1 course), analysis methods (select 1 course), theoretical domain (select 2 courses). Most students will likely take 1-3 additional relevant courses as electives. See Section X for a sample year-by-year plan.

III. First-Year Project

All students are expected to conduct research in the lab during their first year. Regardless of the project's outcome, the student should provide their advisor with a brief written summary of the results and progress by June 1st, in advance of their first-year progress meeting. Acceptable formats for this requirement include: a progress report

including abstract, methods, analysis plan, and summary of existing results; a poster/talk/abstract for a research conference; a manuscript draft; or a pre-registration document plus brief results summary. The first-year project can – but does not have to – form the basis for the Master's thesis.

IV. Master's Degree

All students in the Cognitive Neuroscience program are expected to obtain a Master's degree before the start of their third year. In the event that the Masters is not completed by spring of the 3rd year, the student will no longer be in good standing in the program (see Section VII).

Degree requirements are:

- A. Completion of course requirements A-E in Section II above. Note that students are required by the graduate school to complete a minimum of 30 credit hours before obtaining a master's degree.
- B. Completion and successful defense of a Master's thesis. The purpose of the thesis is to provide the student with experience in conducting research and producing a research document. The topic for the thesis is developed in consultation with the advisor through reading, research, and discussions. Students must submit a written document formatted according to University requirements (refer to Graduate School Handbook <https://gradsch.osu.edu/handbook>) and complete a 1-hour oral defense with their committee members. (Committee members must receive the written document 7-10 days before the oral defense.)

The Master's thesis committee consists of three faculty members. At least two of these must be core faculty in the Cognitive Neuroscience program. The advisor serves as chair of the committee and must have an appointment in Cognitive Neuroscience (and be category M or higher in the graduate program). Additional details on the committee requirements can be found in the Graduate School Handbook and the Department of Psychology Graduate Student Handbook.

- C. Students who enter the program with a Master's degree in psychology (or closely related field) from another university may waive the master's thesis requirements although they must still satisfy the course requirements in section II. To be eligible, the student must submit a copy of his or her master's thesis to the Cognitive Neuroscience faculty and a minimum of three of those faculty members must read and approve it as equivalent to a Master's thesis in the Cognitive Neuroscience program. If the thesis is approved, the student may begin working toward candidacy (see below). If the thesis is not approved, the student must complete a master's thesis as outlined above.

V. Candidacy Examinations

The candidacy exam is intended to evaluate students' mastery of significant knowledge and literature in the field, and to help students consolidate their knowledge and prepare for dissertation-level research. The candidacy examination has both a written and an oral component.

The candidacy examination should ideally be completed by the end of spring semester of the 3rd year in the program. In the event that candidacy is not completed by spring of the 4th year, the student will no longer be in good standing in the program (see Section VII).

The format of the candidacy examination in Cognitive Neuroscience is as follows:

- A. The candidacy examination committee consists of four graduate faculty members. At least three of these must be from Psychology. At least two committee members must be from *within* the Cognitive Neuroscience program (core faculty), and at least one committee member must be from *outside* the Cognitive Neuroscience program (the member can have affiliated faculty status in the program, can be from another area within Psychology, or can be from outside the department). The advisor must be category P in the graduate program. The advisor serves as chair of the committee and must have an appointment in Cognitive Neuroscience. Additional details on the committee requirements can be found in the Graduate School Handbook and the Department of Psychology Graduate Student Handbook.
- B. Reading period. In consultation with the advisor and the candidacy examination committee, the student identifies several topic areas of interest and develops a reading list. The topic areas should represent depth within the student's particular subfield as well as breadth in related subfields. A subset of the reading list will also be common area-wide assigned readings covering essential cognitive neuroscience knowledge that all students in the area should know (updated yearly); the remainder of the list will be customized for/by each student. The reading list can include important books, classic journal articles, and journal articles representing important lines of research in the program, including current research; typical reading lists contain a total of 75-100 journal articles or book chapters. The reading list must be approved by members of the candidacy examination committee.
- C. Written exam. Upon completion of their reading period, the student schedules a written take-home exam.

The exam includes questions from the committee members on the material from the student's reading list and on Cognitive Neuroscience more generally. The exam will be compiled by the committee with the expected length of the responses to total approximately 30-40 pages double-spaced, excluding references.

The exam will also include a question asking the student to propose a detailed research project influenced by their readings. Students are allowed to work on this portion in advance of the written exam period, but should turn it in with the rest of their responses. If the student is planning to submit an NRSA or other formal grant application, they are encouraged to submit that in lieu of a response to this question, pending prior permission from their candidacy committee.

The standard written exam duration is 2 weeks. Requests for alternative durations for the written exam will occasionally be considered but must be requested in advance to the area, and the same expectations for quality and response length apply.

- D. Oral exam. Approximately 1-3 weeks after completion of the written exam, the student will complete a 2-hour oral exam with their candidacy committee. The oral exam will include questions about the written document, as well as reading list topics not covered in the written document. The student should anticipate that good answers will sometimes require critical thinking and synthesis across topics, including those beyond the reading list.

Students are encouraged to talk to other advanced students and faculty members about the exam experience prior to getting their take-home exam questions, and may find it useful to form reading groups with their cohort to discuss the common readings.

Upon successful completion of the candidacy examination, the student is admitted to doctoral candidacy.

VI. Ph.D. Dissertation

The Ph.D. dissertation represents the culmination of graduate training. The dissertation must show evidence of independent and original contributions to the chosen field of study. The doctoral student develops a research topic in consultation with the advisor.

- A. The dissertation committee consists of at least three graduate faculty members. At least three members must be from Psychology, and at least two must be core faculty in the Cognitive Neuroscience program. The advisor must be category P in the graduate program. The advisor serves as chair of the committee and must have an appointment in Cognitive Neuroscience. A Graduate Faculty Representative will additionally be assigned by the Graduate School to attend the final oral examination. Additional details on the committee requirements can be found in the Graduate School Handbook and the Department of Psychology Graduate Student Handbook.
- B. Dissertation Proposal: Approximately one year prior to the anticipated completion of the dissertation, the student should assemble their dissertation committee and prepare a dissertation proposal summarizing the research plan for the dissertation. The proposal can be in the format of a detailed outline or a more formal written proposal. The proposal should specify the current status of and timeline for completion for each component of the dissertation. The proposal is submitted to the dissertation committee, which meets with the student to evaluate the proposal. Upon approval of the proposal, the student proceeds with completing the research and writing the dissertation. Students are encouraged to update their committees should the content or timeline substantially change from what was proposed.
- C. Written dissertation: The dissertation should conform to the University requirements found in the Graduate School Handbook. The expectation of the Cognitive Neuroscience Program is that the dissertation should reflect completion of at least three research projects, at least one of which must include the use of a neuroimaging technique. The standard organization of the thesis is one chapter for each of these projects, plus general introduction and general discussion chapters. Alternate organizations may be approved at the discretion of the committee. The main chapters can essentially be papers that have been submitted or will be submitted to journals if the student is first-author. Review papers are generally not acceptable for these chapters, but can be used as an introduction or discussion chapter.

- D. Oral defense: Upon completion of the dissertation, the oral defense is scheduled. The defense will consist of a short public defense followed by an extended closed oral examination with the committee members. The public portion should take the format of a short research talk presented to the area (all graduate students in the program are strongly encouraged to attend), with time for limited questions; this public portion should take approximately 30-40 minutes of the total 2-hour oral defense. Successful completion of the oral examination and approval of the dissertation document completes the requirements for the Ph.D. degree.

VII. Progress and Performance in the Program

It is important for graduate students to understand the expectations regarding progress in the program and other aspects of performance. **Progress** is defined by completion of degree requirements (milestones) in a timely manner. **Performance** is judged using a variety of factors involving quality, effort, and ethical conduct in coursework and research activities. This section describes expectations regarding progress and performance, followed by an explanation of mechanisms for rectifying circumstances where progress and performance are not satisfactory.

- A. Progress in the Cognitive Neuroscience graduate program is measured by successful and timely completion of a progression of milestones, described in the table below:

Milestone	Requirement	Expected Date of completion	Deadline to maintain adequate progress
First-year Project	Written progress report to advisor	June 1 st of first year	July 15 th of first year
Master's Thesis	Written thesis and oral exam (or waiver of requirements if completed elsewhere), approved by committee (GRADFORMS report)	End of second year (end-of-semester deadline for Summer graduation ¹)	End of spring semester of 3 rd year (end-of-semester deadline for Spring graduation ¹)
Candidacy	Completion of written and oral exams, marked as "pass" by committee (GRADFORMS report)	Last day of spring semester of 3 rd year	Last day of spring semester of 4 th year
PhD Dissertation	Written dissertation and completion of oral defense, marked as "pass" by committee (GRADFORMS report)	End of 5 th year (end-of-semester deadline for Summer graduation ¹)	End of 6 th year (end-of-semester deadline for Summer graduation ¹)

¹ Dates posted at: <https://gradsch.osu.edu/calendar/graduation>

Inadequate progress in the program is defined as not completing a milestone by the deadline listed above. After this date, the student is considered to be "in difficulty" in the program (see Section VII.D below). Note that timeline adjustments due to leaves of absence, medical leaves, or other documented accommodations are not penalized as delays.

- B. **Performance** in the Cognitive Neuroscience graduate program is judged according to the following factors:
1. **Quality of coursework.** To be in good academic standing, as defined by the OSU Graduate School, students must maintain a cumulative grade point average (GPA) of 3.0 or better on a 4.0 scale. Students who do not maintain a 3.0 GPA are placed on academic probation by the Graduate School.
 2. **Research expectations.** A Ph.D. is a research degree, and students are expected to focus their efforts accordingly. Students are expected to exhibit knowledge of current research in the field, develop their own research interests and abilities, gain independence in collecting and analyzing data, and gain skills for presenting research results in oral and written form. Conference presentations and journal submissions should be high priority activities at every stage of training, but especially for students beyond the candidacy examination. Section X lists some concrete year-by-year goals for students in the program. The extent to which students meet these expectations will be taken into consideration during annual evaluations.
 3. **Ethical conduct.** All graduate students are expected to conform to ethical standards of academic and professional conduct in all activities related to teaching, research, and service within the Cognitive Neuroscience program, the Psychology Department, the University, and the broader community. Relevant standards include, for example, Appendix C of the Graduate School Handbook and the Ethical Standards of the APA. Training in research ethics is offered as a yearly component of the CogNeuro Brownbag course, as well as through university training modules and the [Collaborative Institutional Training Initiative](#) (CITI) training (a national research training requirement which all students are expected to complete and to keep their certification up-to-date). Students are responsible for understanding and abiding by these and related standards. Concerns about ethical violations or research misconduct will be referred to the department Ethics Committee and are potential grounds for termination from the program.
- C. **Performance review meetings.** At the end of the spring semester each year, students must complete the departmental Student Activity Report form, and the program faculty will meet to discuss each student's progress. Following that meeting, each student will meet with their advisor for an annual review meeting. During this review, students will receive feedback on their progress and performance in the program. This annual meeting is also an opportunity for the student to raise questions, concerns, feedback, and goals they have. The meeting will also include a discussion of explicit plans and expectations for the subsequent year. Each student will be provided with a written summary of this annual evaluation, which will include constructive feedback on strengths and weaknesses as well as a numerical rating of overall performance, using the following scale: 4 = above expectations; 3 = meets expectations; 2 = below expectations; 1 = well below expectations. A rating of less than 3 indicates *inadequate performance*, and the student is considered to be "in difficulty" in the program (see Section VII.D below).
- D. The program will notify the Psychology Department Graduate Studies Committee of progress of all students. If a student is classified as "in difficulty" in the program (due

to *inadequate progress* or *inadequate performance* as defined above), the program faculty and the Graduate Studies Committee will discuss further action according to the Psychology Graduate Student handbook. A letter will emanate from the program and or the Graduate Studies Committee so that students can, if possible, correct or remediate the concerns in a timely manner. The letter will specify the necessary steps to be taken by the student and conditions that must be satisfied, along with a time frame, for the student to return to good standing in the program. If those conditions are not satisfied within the specified time frame, the program faculty will meet with the Psychology Graduate Studies Committee to determine further action. Possible actions include not recommending the student for further financial support, termination of current support, or activation of the mechanism specified in the Graduate School Handbook. Under the last alternative, the student may be denied future registration in the Graduate School if specified conditions are not satisfied within one semester. Note that serious ethical violations or research misconduct can trigger immediate action without the “in difficulty” status.

- E. A student has the right to appeal any performance evaluation and resulting action by the faculty by following the grievance procedures in the Department of Psychology Graduate Program Handbook.

VIII. Students with Prior Graduate Training

For students entering the program with prior graduate training, some of the requirements stated above (e.g., course requirements, concentration or minor program requirements, masters thesis requirements) may be modified or waived. These modifications or waivers will be considered on a case-by-case basis.

If a student wishes to transfer into the Cognitive Neuroscience program from another graduate program within the Psychology Department, this will also be considered on a case-by-case basis in conjunction with the student, their advisor, and the program faculty; contact the program head to inquire about the option.

IX. Funding and Outside Employment

The program aims to provide all students in good standing with complete financial support for at least five years, including a monthly stipend and tuition and fee waivers. University Fellowships are available on a competitive basis, and are matched with departmental teaching assistantships and/or faculty research grant assistantships.

Students in the program are typically funded off of mechanisms that include an appointment as a 50%-time graduate research assistant or graduate teaching assistant (20 hours per week), with the expectation that the remaining time be focused on their research and training. The OSU Graduate School allows an enrolled student to work up to 30 hours per week for pay, either on-campus or off-campus, if they are in good standing and making acceptable progress toward their degree requirements. Thus, students with these appointments are technically allowed to earn money for an additional 10 hours per week. However, opportunities for additional employment should be considered very cautiously and must be discussed with the student’s advisor. If such employment would involve substantial commitments of time or energy, students are strongly discouraged from becoming involved. Such activity almost invariably results in impeded progress in the program, as well as a reduction in the quality of the student’s

performance. However, certain types of limited additional employment may not necessarily be discouraged, such as short-term consulting projects or continuing employment for a very small number of hours. Note, if you are on a fellowship from another source, there may be additional restrictions on outside employment.

For summer funding, students are encouraged to discuss options with their advisors. Most students in the program are guaranteed 12 months of funding for a certain number of years as part of their admissions offers, but later years may only include 9-month stipends. For these remaining summers, there are various sources of summer funding offered through the Psychology department, Center for Cognitive and Brain Sciences, and external grant funds. Talk to your advisor about which you should apply for.

X. Sample Year-by-Year Plan

	Coursework & Teaching	Research & Other Milestones
Year 1	<ul style="list-style-type: none"> • <i>Typical load: Brownbag + 2 other courses per semester</i> • Fall semester: Stats sequence 1 (6810), CogNeuro Brownbag (8860), Techniques and Topics in Cognitive Neuroscience (6880) • Spring semester: Stats sequence 2 (6811), CogNeuro Brownbag (8860), Intro to fMRI (5425) or another course • Take other appropriate courses if advised by your advisor • No teaching responsibilities 	<ul style="list-style-type: none"> • <i>Goal: First-year research project</i> • Discuss responsible research practices with your advisor, read articles from relevant journals, attend research talks, get to know your colleagues and their research, join professional societies, join the CCBBI student group • Consider submitting pre-registration documents when appropriate • Present research at brownbag • Consider submitting an NSF GRF if eligible
Year 2	<ul style="list-style-type: none"> • <i>Typical load: Brownbag + 1-2 other courses per semester + teaching (CA hours)*</i> • Both semesters: CogNeuro Brownbag (8860) • Take your analysis methods course (e.g. Advanced fMRI (6650) or other). • Take 1-2 additional courses in Cognitive Neuroscience or your theoretical domain • *Teaching responsibilities vary: typically course assistant (CA) hours for courses in the department 	<ul style="list-style-type: none"> • <i>Goal: Complete research project for Master's thesis</i> • Continue activities from year 1 • Increase involvement in research projects • Aim to do a conference presentation (poster or talk) • Aim to begin writing manuscripts • Discuss outreach and mentoring opportunities with your advisor • Consider submitting an NSF GRF if eligible
Year 3	<ul style="list-style-type: none"> • <i>Typical load: Brownbag + 0-1 other courses per semester + teaching*</i> 	<ul style="list-style-type: none"> • <i>Goal: Increase research activity and complete candidacy exam</i>

	<ul style="list-style-type: none"> • Both semesters: CogNeuro Brownbag (8860) • Complete the remaining courses in your theoretical domain • Take relevant advanced courses and seminars in Cognitive Neuroscience or related fields • *Teaching responsibilities vary: CA hours, teach section of IntroPsych, other dept role, and/or GRA position (research-only fellowship) 	<ul style="list-style-type: none"> • Increase involvement and independence in research projects • Aim to be submitting manuscripts for publication • Aim for one or more conference presentations • Fall semester: Identify topics for candidacy exam and begin reading period; Spring semester: complete candidacy exam • Discuss career-development opportunities with your advisor
Year 4	<ul style="list-style-type: none"> • <i>Typical load: Brownbag + teaching*</i> • Attend CogNeuro Brownbag • Limit additional coursework to the minimum; advanced seminars only • *Teaching responsibilities vary: CA hours, teach section of IntroPsych (default), other dept role, and/or GRA position 	<ul style="list-style-type: none"> • <i>Goal: Increase research activity and independence</i> • Aim for conference presentations and manuscript submissions • Develop the dissertation proposal and enter final stage of dissertation research • Consider submitting for dissertation year fellowships or NRSA fellowship if eligible • Discuss career plans with your advisor
Year 5	<ul style="list-style-type: none"> • <i>Typical load: Brownbag + teaching*</i> • Attend CogNeuro Brownbag • Coursework should be already completed prior to this year • *Teaching responsibilities vary: CA hours, teach section of IntroPsych (default), other dept role, and/or GRA position 	<ul style="list-style-type: none"> • <i>Goal: Complete dissertation research</i> • Focus on research and career-building activities, including manuscript submissions, conference presentations, fellowship proposals • Apply for postdocs/jobs • Defend dissertation (yay!)

XI. Information Regarding Departmental Limits on Credit Hours

Due to policy set by the State of Ohio, the Graduate School and many departments, including Psychology, are unable to pay tuition for students who have more than 174 credit hours. Advanced students (beginning at the end of the second year) need to monitor their cumulative hours so as to not exceed the limit. The current Psychology Department policy is listed below.

1. New students should apply for State of Ohio residency as soon as possible to reduce the tuition burden for the Department.
2. The Department will not pay tuition for students who have over 174 credit hours.
3. Students should only enroll in the minimum required number of credits per semester (see table below and consult with Psychology Department Graduate Program Coordinator Mary Jones when registering). Moreover, students need to

complete their degree in a timely fashion (i.e., 5-6 years). These safeguards will prevent a student from accruing excess credit hours.

4. For the semester of the final oral defense and graduation, the Department will cover tuition costs associated with the required 3 credit hours for students appointed to graduate teaching assistant (GTA), graduate research assistant (GRA), or lecturer positions, if the student is an in-state resident.
5. Students should not enroll in courses that are unrelated to their degree program (e.g., courses in physical education).

Hours	Appointment
12	Fellowship of any kind
8	GTA or GRA
3	Every semester post candidacy

CONCENTRATION (MINOR) REQUIREMENTS

This page outlines requirements for graduate students in other programs who wish to complete a formal concentration (minor) in Cognitive Neuroscience.

Course Requirements

A student wishing to complete a concentration (minor) in Cognitive Neuroscience must complete the following:

- A. Psychology 6880 (Techniques and Topics in Cognitive Neuroscience)
- B. 2 semesters of Psychology 8860, Current Research in Cognitive Neuroscience (aka CogNeuro Brownbag). Students must enroll for credit and present a research talk.
- C. One additional graduate course offered as part of the Cognitive Neuroscience program. Current courses counting toward the concentration are: Introduction to fMRI (5425), Introduction to EEG (5621), Advanced fMRI Analyses (6650), Model-based Cognitive Neuroscience (7695-Turner), Developmental Cognitive Neuroscience (5628), Decision Neuroscience/Neuroeconomics (5870), Seminar in Machine Learning Approaches to Social Cognitive Neuroscience (7897-Wagner). (Note that some of these are topical seminars taught under shared/common course codes; if an instructor is listed, only that specific offering counts toward the concentration.) Courses on this list taken to fulfill requirements for the student's primary area may also be counted for the Cognitive Neuroscience concentration. For courses not on this list, contact the Cognitive Neuroscience program head to discuss whether it can be counted.

Students must achieve a grade point average of no less than 3.0 in these courses to successfully complete the concentration. Courses that are not taken for a grade (e.g., audited courses or courses that are waived for any reason) cannot be counted toward the Cognitive Neuroscience concentration. Students who completed candidacy in Fall 2020 or earlier may contact the program head to discuss potential waivers for requirement A. The program reserves the right to exclude future courses from fulfilling the concentration requirements.

Other Information

For a student to receive a concentration (minor) in Cognitive Neuroscience, it is not required that a faculty member from the Cognitive Neuroscience program serve on the student's candidacy examination committee.

When a student has completed the coursework for the concentration and has achieved an adequate GPA in those courses, the student should submit a letter to the Cognitive Neuroscience program head indicating the courses applicable to the concentration. The letter should indicate the student's home area and, for each course, the semester in which the course was taken, the instructor, and the grade received. The Cognitive Neuroscience program head will subsequently provide the student and their adviser with a letter verifying completion of the concentration (minor) requirements.

SUPPORT AND RESOURCES

In the Cognitive Neuroscience program, graduate students are valued members of our community, and we strive to create an inclusive and supportive environment. We recognize that students come from different backgrounds and with often hidden pressures and challenges. Graduate school can be a stressful and challenging time: if you are feeling stressed or overwhelmed, we encourage you to communicate with your advisor. Peers in the program and your lab can also be great sources of support. Campus services are available for students with concerns about mental health, disability accommodations, diversity, immigration, and student support in general, as listed below.

- For questions related to course registration, credit hours, deadlines, stipends, submission of forms related to milestone completions, and other topics related to graduate school or Psychology Department guidelines, contact:
 - Mary Jones, Psychology Department Graduate Program Coordinator; jones.3308@osu.edu, Psychology Building room 211; 614-292-4112
- For questions related to the Cognitive Neuroscience program or faculty, contact:
 - Julie Golomb, Cognitive Neuroscience Program Head; golomb.9@osu.edu
- For questions about the building, reimbursements, and other general assistance from psychology department staff, contact:
 - psych.service@osu.edu
- For questions related to the Center for Cognitive and Behavioral Brain Imaging (fMRI center), contact:
 - <https://ccbbi.osu.edu/>
 - Ruchika Prakash, Director; prakash.30@osu.edu
 - Center staff: ccbbi.service@osu.edu
 - CCBBI Student Group: <http://org.osu.edu/ccbbistudentgroup/join/>
- For questions related to the department EEG center, contact:
 - Julie Golomb, Director; golomb.9@osu.edu
 - Jiageng Chen, Manager; chen.5805@osu.edu
- For mental health resources and support:
 - Counseling and Consultation Service: <https://ccs.osu.edu/about-us-and-our-services/>
 - Student Wellness Center: <https://swc.osu.edu/services/>
 - Student Advocacy Center: <http://www.advocacy.osu.edu/>
- For resources related to diversity and racial justice, and support and communities for students from underrepresented backgrounds
 - Lists of student organizations and on- and off-campus community resources: <https://psychology.osu.edu/diversity/resources>
 - OSU initiatives on Diversity: <https://www.osu.edu/initiatives/diversity.html>
 - Office of Diversity and Inclusion: <https://odi.osu.edu/>
 - Student Life Multicultural Center: <http://mcc.osu.edu/>
 - Psychology Department Graduate Student Committee for Diversity, Equity, & Inclusion: contact Taylor Ballinger (Ballinger.113@osu.edu)

- For assistance related to visas, immigration, English language courses, and general support for international students:
 - Office of International Affairs: <https://oia.osu.edu/>
- For assistance with support and accommodations for students with disabilities:
 - Disability Services: <https://slds.osu.edu/>
- For issues related to sex- and gender-based misconduct:
 - Title IX Office: <https://titleix.osu.edu/>
- Other resources
 - Healthcare: <https://shs.osu.edu/services/>
 - Child Care Program: <https://hr.osu.edu/child-care-program/>
 - OSU Graduate School: <https://gradsch.osu.edu/>
 - Living in Columbus: <https://www.experiencecolumbus.com/>
 - Links to Psychology Department grad student resources and forms: <https://psychology.osu.edu/graduate/current-students/resources>
- *If there are any other resources you'd like to see listed here, let us know!*