

# Requirements of the Cognitive Area

March 01, 2022

## **A. Statistics or quantitative courses**

By the end of the 3rd year, students are required to complete:

1. Research Design & Analysis I Psychology 521
2. One additional Statistics/Quantitative course, either

Research Design and Analysis II Psychology 522 or Mathematical Models of Learning, Perception, Cognition Psychology 540 or Another Statistics/Quantitative course by petition to the Area Coordinator

## **B. Core topics**

Students are required to complete at least 4 different courses taught by core faculty in the Cognitive Area by the end of their 4<sup>th</sup> year. The courses must be selected from at least 4 of the following topics:

1. Perception
2. Decision Making
3. Memory
4. Computational models of cognition
5. Development
5. Language
6. Cognitive neuroscience

In cases where the topical area of a course is ambiguous, students should consult their principal faculty advisor or the Area Coordinator for advice. Final decisions are made by the Area Coordinator.

The remaining course credits comprise elective courses chosen from offerings within and outside the department. These courses should be selected in consultation with the principal faculty advisor and other faculty to contribute to the student's overall training in his or her area of specialization.

Students may choose to undertake the Certificate in Cognitive Science offered by the Center for Cognitive Science (RuCCS), as well as the Core Curriculum in Perceptual Science. Interested students should consult the relevant units, respectively RuCCS and the Perceptual Science program, for further information.

## **2. Master's Thesis**

The Master's thesis is normally completed by the Fall of the third year, although students are encouraged to aim for earlier completion. The Master's committee consists of three members of the graduate faculty in Psychology, including the primary faculty advisor. Because the

committee is intended to guide as well as to evaluate research, the committee should be formed as early as possible during the first year.

A brief oral presentation of Master's thesis work, serving as an oral defense, is normally given in the early Fall of the third year as the student's annual presentation of recent work.

### **3. Qualifying Exam**

The Qualifying Exam committee consists of four members of the graduate faculty in Psychology, including the primary faculty advisor. Students are encouraged to form this committee as soon as their Master's Thesis is completed.

The Qualifying Exam should be completed by late in the Fall of the third year, with committee approval (including revisions) achieved by the end of the Fall semester. The Exam has two parts and students are expected to weight them equally in terms of effort:

- **A critical review of the literature in a selected area of research**

The topic of the review, along with an outline, should be approved by the members of the committee before the review is undertaken. Students are encouraged to choose a review topic that will be of value for completing their dissertation research. This portion of the Qualifying exam should be completed within approximately 3 months. The review should be no more than 20 double-spaced pages, excluding figures and bibliography. Students are encouraged to state the theme of the review and the major points on the first page. The length limit is to be met by using a concise and clear writing style, rather than by curtailing the scope of the review. If additional space beyond the 20 pages is needed to support arguments or describe relevant literature, appendices may be added as needed, though the evaluation of the work by the committee will be based on the main document. Reviews must be edited for clarity of writing, with the writing approved by the major advisor prior to submission to the committee. As part of the evaluation process, the advisor or any committee member may request a meeting of the committee and the student for open discussion of the review paper.

Two lectures (on distinct topics) for an undergraduate course in cognitive psychology, to be supervised by the primary faculty advisor and observed (live or via a recording) by members of the Qualifying Exam committee.

- **Lecture notes and recordings of the two lectures must be submitted to the committee**

Ideally, these lectures will be given during the Fall semester of the third year, but practical considerations such as course schedules dictate some flexibility and some advance planning. Two formats are available: (1) a conventional in-class lecture. In that case the committee members must be informed one week ahead of the date and location of the lecture; (2) a lecture in online format, consisting of a Powerpoint or other visual presentation supplemented by a recorded audio narration. In either format, lectures will be evaluated on the following criteria: soundness of content, originality (i.e., lectures may not be taken directly from a textbook), effectiveness of presentation, and level of preparation. The committee has the option of requiring the student to repeat a lecture or deliver a new one if the quality of the lecture is not up to standards of the field.

#### **4. Doctoral Thesis**

The doctoral thesis should be completed by the end of the fifth year, though students are encouraged to aim for earlier completion. The Dissertation Committee has four members: three members of the graduate faculty in Psychology, including the primary faculty advisor, and one outside member not on the graduate faculty of Psychology. (The outside member may be at Rutgers or at another institution.) Students should submit a brief letter explaining the choice of outside member and a copy of the proposed outside member's curriculum vitae with the committee form submitted to the department.

Students are expected to form the Dissertation Committee as soon as their Qualifying Exam is completed, to provide the Dissertation Committee with a brief written thesis proposal, and to present the proposal orally at a meeting of the Committee (including the outside member if practical considerations permit).

The proposal should include contingency plans should the proposed research progress in unexpected ways and should not be viewed as guarantee that a degree will be awarded contingent on completion of the proposed research. The committee should be consulted periodically over the course of the dissertation work. After completion of the dissertation (at least two weeks after the document has been made available to the Committee), the student is required to give a public oral defense of the thesis.

#### **5. General requirements of the Cognitive Area**

1. All students in the Cognitive program (including first-year students) are expected to present their recent work to the Area once per year, in a format determined by Area faculty.
2. Students are expected to have a primary faculty advisor and an active committee (Masters, then Qualifying Exam, then Dissertation) at all times beginning in the Fall of their first year. Students must maintain an active degree completion timeline, consisting of a list of courses completed, course requirements remaining, and titles of completed activities and the activity in progress (Master's, Qualifying Exam, or Doctoral thesis), along with expected dates for completion. The plan is stored in the student's file and can be accessed by any Area or departmental faculty. Maintaining good standing in the program requires adherence to these requirements.
3. Progress toward the degree of each student will be evaluated annually by the Cognitive area faculty as a whole. Students are urged to bring any significant obstacles to progress to the attention of their advisor or Area Coordinator promptly.
4. Time limits for evaluation of Master's thesis, Qualifying Exam and Doctoral thesis:

Students are expected to allow a minimum of 2 weeks for committee members to evaluate the work, and Committee members are expected to deliver their judgments and feedback within this 2-week interval, including recommendations for revisions. If the student does not allow the two weeks for evaluation, or if a committee member does not respond within two weeks, the student's advisor, the Area Coordinator, or if necessary, the Graduate Vice-Chair, will be asked to address the delays to ensure timely completion of projects meeting established standards.

## **6. Where to go for help**

Questions about these requirements or timetables should be directed to the primary faculty advisor or the Area Coordinator.

Questions about Department or university policies can be directed to the Psychology Graduate office. Students will receive annual letters evaluating their progress in the program. These letters, issued by the Area Coordinator in consultation with the primary faculty advisor and other faculty, provide an opportunity for students to address any issues that may be impeding their progress through the cognitive program.

### **Disclaimer:**

This information is accurate as of March 01, 2022. However, since requirements are periodically updated, it is possible that there is a discrepancy between what appears on this page and up-to-date policies. Therefore, this is presented for informational purposes only and does not necessarily constitute the official policies of the Psychology Graduate Program or the Cognitive Area. To find out the most up-to-date policy of the Cognitive Area, please contact Anne Sokolowski ([annes@psych.rutgers.edu](mailto:annes@psych.rutgers.edu)).