

PhD Qualifying Exam Instructions for Neuroscience Program Students

The Qualifying Exam (QE) for the Neuroscience Program consists of **two written components** and **one oral examination**. The exam is taken soon after successful completion of one of the grant writing courses, N627 for PhD students or MDPH601 for MD-PhD students. Hence, it is usually taken during the spring by MD-PhD or summer by PhD students. In either case, it must be completed before the start of the third year of education. Delay into the third year requires approval by the Dean of the College of Graduate Studies.

Composition of the QE committee. The QE committee consists of at least 5 members (including the student's advisor), who hold primary appointments in at least 3 different departments (but no more than 3 with primary appointments in the same department). The composition of the committee must be approved by the Dean of the College of Graduate Studies who also selects the Chair of the examination committee. Students are advised to assemble the committee as early as possible. This is particularly important for PhD students due to the timing of N627; students should select committee members prior to the end of the spring course because summer travel plans can complicate the scheduling of the exam. At least 6 weeks before their intended oral examination date, it is the student's responsibility to convene the first meeting of their QE committee (and send a copy of this guideline to each committee member). In this meeting, the committee will finalize the exam schedule and, without the student present, formulate the exam question. The students should get in touch with the chairperson to find out what the student should prepare for the meeting (e.g., the committee may want to read the Specific Aims page of your grant, or require you to give a short presentation).

QE written components. The **first** written component is a **9-page research proposal** that is related to the student's planned dissertation work. This proposal should include 1 page of Specific Aims and 8 pages of Research Strategy detailing the background and significance of the project, innovation, preliminary data (if already available), and experimental design with expected results, possible pitfalls, and alternative approaches. Scientific rigor and rigor of prior research should be key components of this proposal. While figures count towards the 9-page limit, a bibliography should be provided separately, without page limits. The students can utilize the proposal prepared during the grant writing class, but the proposal submitted for examination should contain at least one additional Specific Aim that is developed from original ideas of the student, that has not been discussed in the grant writing class, and that is prepared by the student without any feedback or input from their advisor or any secondary party.

The **second** written component is a **7-page original scholarly response** to a challenge question that the qualifying exam committee designs for the student. The topic of the challenge question will not be the same as the planned dissertation work of the student but can be related to it. Alternatively, it may reflect an area that the advisor and committee would like the student to know more about, or refer to a current controversy in the field that the student will benefit from addressing. It is encouraged that this essay form the basis for a publication or at least be used in the student's dissertation.

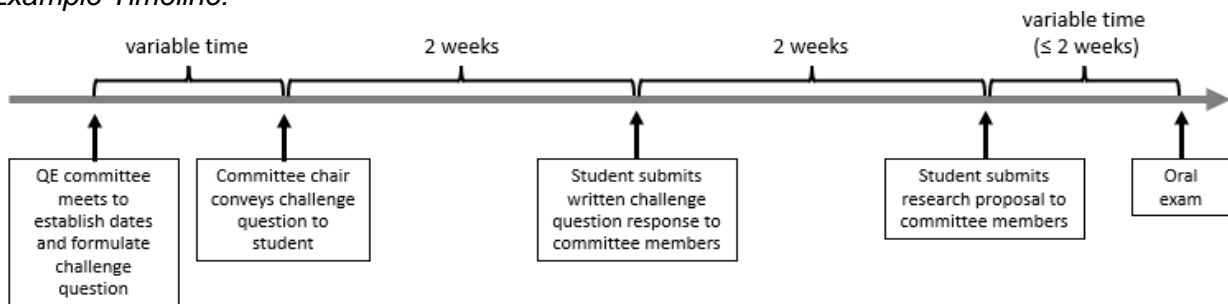
- Page letter size (8.5 x 11"); margins at least 0.5" all around
- Fonts must be Arial, Helvetica, Georgia, or Palatino, 11 points or larger.
- Do not use compressed fonts.
- Line spacing must be 1.0 or 1.15 line.
- Paragraphs may be separated with additional spacing as needed.

Written documents that do not follow these formatting rules will be rejected.

QE oral component. At the oral examination, the student will be evaluated on their specific scientific knowledge related to what they have written, as well as their general knowledge in neuroscience that forms the basis for their planned dissertation work. The specific format of the oral exam is determined by the committee, with voting procedures and possible outcomes as specified by the College of Graduate Studies. Note that the student's primary advisor will participate in all aspects of the exam but will not have voting privileges.

QE Timeline. The total timeline of the written exam is 4 weeks, during which the student is required to complete each of the written components within two (2) weeks, in any order that the student prefers. The student will return to each examiner, on the respective due dates, a copy of the research proposal and the scholarly response to the challenge question. The oral examination shall take place within two (2) weeks after the completion of the written section of the QE. Specific deadlines for submitting each of the written components and the date of the oral examination will be set by the QE committee prior to the start of the exam.

Example Timeline:



Note: if the alternate order of written exam components is selected, the challenge question will be conveyed to the student only after submission of the research proposal.

Questions before the start of the exam: ask the Neuroscience PhD Program Adviser

Questions after the start of the exam: ask the Chair of your QE Committee