Required Coursework

First Year Students:

- Core neuroscience course (fall, winter, and spring quarter)
- Lab rotations (three rotations, one per quarter)
- One advanced course
- Journal Club

Students should plan to spend roughly 50% of your time on courses and 50% of your time on laboratory rotations during the first year. The lab rotations (described more completely below) have the dual functions of exposing you to different areas of research and helping you choose a laboratory in which to do a Ph.D. thesis.

Students may choose to take as electives advanced neuroscience courses or basic courses offered through the other graduate programs.

Courses:

**N201 A, B, & C: Core Neuroscience Course**

**NS215: Laboratory Rotations (Research)**
Laboratory rotations for first year student. Three rotations must be completed during the first year.

In addition to course work, each first year student is required to do a minimum of three laboratory rotations. All three rotations can not be in the same area, e.g. systems, molecular. These rotations need not all be done within the Neuroscience Program, but can be done in the laboratories of other members of the P.I.B.S. faculty. The aim of these rotations is to give students broad laboratory experience and to allow them to explore laboratories in which they might wish to do a thesis. The rotations begin in the Fall quarter of the first year. Rotations should be chosen in consultation with faculty and graduate advisors to give a varied laboratory experience. Rotations are expected to take at least half a student's time during a quarter. The laboratory work done during a rotation is to be written up by the student and discussed with the laboratory director. These rotation reports are to be given to the graduate advisors, with a copy to the Program administrator. The laboratory director is also expected to write an evaluation for the student’s file, which should also be given to the Program administrator. Each rotation should represent a serious commitment for both student and advisor.

**Neuroscience Advanced Courses**
Students are expected to have completed 1 of the 4 required advanced courses before taking qualifying examinations at the end of the first year. First year students do not typically take an advanced course in their first quarter in the program, but may do so with the approval of the course director. (MSTP students are required to take 3 advanced courses and are expected to have completed at least 1 of the 3 required advanced courses before taking qualifying examinations.)

**NS220: Neuroscience Journal Club (Fall, winter, and spring quarters)**

Second Year Students:

- Dissertation Research (fall, winter, and spring quarter)
- Neuroscience Advanced Courses
- Ethical Conduct of Science (spring quarter)
- Teaching (spring quarter)
- Journal Club (fall, winter, and spring quarter)
Courses:

**NS250: Dissertation Research**
At the end of the first year when a student joins a thesis lab, lab rotations are replaced by dissertation research.

**Neuroscience Advanced Courses**
Students must take a minimum of 4 advanced courses before the end of the third quarter of their fourth year. MSTP students are required to take 3 advanced courses.

**NS 214: Ethics and the Responsible Conduct of Research**
The Ethics Course is taught every spring with sessions held at both Parnassus and Mission Bay campuses. Students may choose to attend the sessions at either Parnassus or Mission Bay. Information about registration is available each spring. Please contact the program administrator for details.

**Teaching Requirements**
In the second year, neuroscience students teach as graduate assistants for one quarter, typically the spring quarter. The teaching experience consolidates the students’ grasp of the field and provides training for those who will eventually be employed as college or university professors. Information about the teaching assignments is provided to the students in advance of the spring quarter.

**NS220: Neuroscience Journal Club (Fall, winter, and spring quarters)**

---

**Third Year Students and Higher:**

- Dissertation Research
- Neuroscience Advanced Courses
- Journal Club