Advanced Neuroscience Courses

Advanced courses should not require more than 8 to 10 hours per week of effort by students. These courses are intended to supplement, not displace research training by students. Students, postdoctoral fellows, and other interested members of our program are encouraged to take full advantage of these course offerings.

Schedule of Advanced Neuroscience Courses

2007-2008

Fall: NS248 Analysis of Neural and Behavioral Data (FRANK)
Fall: NS223 Developmental Neurobiology (PLEASURE)
Winter: NS230 Membrane Biophysics and Synaptic Physiology (ULLIAN)
Spring: NS243 Cognitive Neuroscience (GAZZALEY)
Fall-Spring: NS221 Current Topics in Neuroscience (NOBLE, BONCI)

2008-2009

Fall: NS222 Signaling in Neurobiology (VON ZASTROW)
Winter: NS240 Neurobiology of Vision (HORTON)
Spring: NS249 Neural Circuits, Perception & Action (SABES)
Spring: NS225 Neurobiology of Disease (FINKBINER)
Fall-Spring: NS221 Current Topics in Neuroscience (NOBLE, BONCI)

Advanced Course Requirements

Non-MSTP students:

Students must take a minimum of 4 advanced courses before the end of the third quarter of their fourth year. Students are expected to have completed at least 1 of the required advanced courses before taking qualifying examinations. Three courses must be selected from the list of advance neuroscience courses. The fourth may be selected either from this list or the list of approved alternates below.

Two courses must be from category A (cellular/molecular) and two from B (systems). If an AB course is chosen to satisfy the A requirement, the 2nd A course cannot be AB. Similarly, if an AB course is chosen to satisfy the B requirement, the 2nd B course cannot be AB. (See list below.)

MSTP students:

MSTP students are required to take three elective courses before the end of the third quarter of their fourth year. Students are expected to have completed at least 1 of the required advanced courses before taking qualifying examinations.

All three courses must be selected from the list of advanced neuroscience courses.

One course must be from category A (cellular/molecular) and one from B (systems). The third course may be any course selected from the list of advanced neuroscience courses.
List of Advanced Neuroscience Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Director</th>
<th>Category</th>
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<tbody>
<tr>
<td>NS221: Current Topics in Neuroscience</td>
<td>Noble, Bonci</td>
<td>A or B</td>
</tr>
<tr>
<td>NS222: Signaling in Neurobiology</td>
<td>von Zastrow</td>
<td>A</td>
</tr>
<tr>
<td>NS223: Developmental Neurobiology</td>
<td>Pleasure</td>
<td>A</td>
</tr>
<tr>
<td>NS225: Neurobiology of Disease</td>
<td>Finkbeiner, Messing</td>
<td>A or B</td>
</tr>
<tr>
<td>NS230: Membrane Biophysics and Synaptic Physiology</td>
<td>Ullian</td>
<td>A</td>
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<tr>
<td>NS235: Sensory Transduction and Perception</td>
<td>Korenbrot</td>
<td>A</td>
</tr>
<tr>
<td>NS240: Neurobiology of Vision</td>
<td>Horton</td>
<td>A or B</td>
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<td>NS243: Cognitive Neuroscience</td>
<td>Gazzaley</td>
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<td>NS245: Behavioral Neuroscience</td>
<td>Janak, Doupe</td>
<td>B</td>
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<td>NS247: Computational Neuroscience</td>
<td>TBA</td>
<td>B</td>
</tr>
<tr>
<td>NS248: Analysis of Neural and Behavioral Data</td>
<td>Frank</td>
<td>B</td>
</tr>
<tr>
<td>NS249: Neural Circuits, Perception &amp; Action</td>
<td>Sabes</td>
<td>B</td>
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List of Approved Alternate Courses

The following courses are approved as alternatives to the Neuroscience advanced courses. Students who take a course listed below may count that course toward the 4 total required advanced courses.

Biophysics 203: Foundations of Mathematical Biology
Genetics 200A
Biochem 200A: Macromolecules
Biochem 201: Bioregulation
Biochem 246: Developmental Biology
Chemical Biology (Chem 243)
Cellular Biophysics (Biophysics 201)
Molecular & Cellular Immunology (Micro 204)
BMS 225A: Biology of Human Tissues and Organ Systems, Part I
BMS 225B: Biology of Human Tissues and Organ Systems, Part II
BMS 255: Basic Genetics & Genomics

Additional Courses Available to UCSF Neuroscience Students

UCSF Courses: http://student.ucsf.edu/gencat/courselisting.html
PIBS and non-PIBS courses are offered through the graduate school. Neuroscience students may register for these courses.

UC Courses: Intercampus Exchange http://saawww.ucsf.edu/admission/forms.html#intercampus
The University of California Intercampus Exchange program allows graduate students to take courses on another campus of the University while remaining registered on the home campus.

San Francisco Consortium: http://saawww.ucsf.edu/admission/sfconsortium.html
UCSF students may take advantage of a cross-registration system among four member colleges and universities that make up the San Francisco Consortium: the University of San Francisco, San Francisco State University, UC San Francisco, and Hastings College of the Law.

Stanford Exchange: http://saawww.ucsf.edu/admission/forms.html#stanford
A regularly enrolled, full time, matriculated student of a member institution may register for courses offered by Stanford University. No cost to the student or institutions is involved.