

## **FIRST-YEAR STUDENTS**

### **WHAT TO REGISTER FOR in FALL:**

[BSR1706](#) "Neuro Core 1: Systems Neuroscience" (Aug-Oct)  
[BSR1705](#) "Neuro Core 2: Cellular and Molecular Neuroscience" (Oct-Dec)  
[BSR1021](#) "Responsible Conduct in Research"  
[BSR4702](#) "Selected Topics in Neuroscience" (our weekly Journal Club/WIP)  
[BSR5701](#) "Translational Neuroscience Seminar series"  
[BSR2707](#) "Techniques and Approaches in Neuroscience"  
[BSR1006](#) Laboratory Rotation

### **WHAT TO REGISTER FOR in SPRING:**

[BSR1707](#) "Neuro Core 3: Behavioral and Cognitive Neuroscience"  
[BSR1708](#) "Neuro Core 4: Pathophysiology of Neurological and Psychiatric Disorders"  
[BSR6705](#) "Neuro Core 5: Clinical Topics in Neuroscience" (\*direct patient contact)  
[BSR4702](#) "Selected Topics in Neuroscience"  
[BSR5701](#) "Translational Neuroscience Seminar series"  
[BSR1007](#) Laboratory Rotation  
[BSR1022](#) "Rigor and Reproducibility"  
[\\*BSR1715](#) "Modern Statistics for Modern Biology"

### **\*BIostatISTICS (must be completed in YEAR 1)**

While there are three first-year Biostats classes offered, **we prefer** that Neuroscience students take BSR 1715—a course designed by Neuroscientists and aimed to deal with Neuroscience-relevant datasets. The course covers core probability, statistical inference, linear models, null hypothesis significance testing, bayesian parameter estimation, and other important topics. The course has lab simulations using R-programming. Students not familiar with R can take [BIO6300](#) ("Intro to R-Programming") in the Fall (this would also count as an Advanced Elective).

Importantly, we do not feel that [MPH0300](#) "Introduction to Biostatistics" is sufficient. It is too basic and too limited to be useful to Neuroscience students.

There is another potential option that requires prior discussion with the Neuroscience MTA director as to its suitability in lieu of BSR 1715. [BIO6400](#) "Biostatistics for Biomedical Research" is taught in the **Fall**. This course is taught from the perspective of data-sets relevant to epidemiology/population genetics, so it may not in every instance be immediately relevant to neural data. A placement test is required (about 20-25 min long) testing concepts in calculus and algebra, or alternatively, you can provide evidence (your transcript or a Coursera course) that you have had calculus in the past 2-3 years. This biostats preparatory course also has labs requiring R programming (or SAS, not recommended).

## **SECOND-YEAR STUDENTS (and later years)**

**Both Fall and Spring, all years:**

[BSR4702](#) "Selected Topics in Neuroscience"

[BSR5701](#) "Translational Neuroscience Seminar series"

[BSR8000](#) "Independent Research" (prior to your Thesis Proposal Exam), or [BSR9000](#) "Dissertation Research" after successfully passing your thesis proposal exam but before your thesis defense.

### **Note about "Selected Topics in Neuroscience"**

1. All students in years 1 -4 must register for the course each semester
2. Students in year 1 must ATTEND each week and PRESENT (WIP or Journal article)
3. Students in years 2-4 must present (WIP), but need not attend unless they want to
4. Students in years 5+, attendance is optional, they need not present, attend nor register