FIRST-YEAR STUDENTS

WHAT TO REGISTER FOR in FALL (all courses below are **REQUIRED):**

BSR1706	Neuro Core 1: Systems Neuroscience" (Aug-Oct)
BSR1705	Neuro Core 2: Cellular and Molecular Neuroscience" (Oct-Dec)
BSR1021	Responsible Conduct in Research
BSR4701*	Journal Club: Neuroscience
BSR4702*	Works-in-Progress: Neuroscience
BSR5701**	Translational Neuroscience Seminar series
BSR2707	Techniques and Approaches in Neuroscience
BSR1006	Laboratory Rotation

WHAT TO REGISTER FOR in SPRING (all courses below are **REQUIRED):**

BSR1707	Neuro Core 3: Behavioral and Cognitive Neuroscience (Jan-Mar)
BSR1708	Neuro Core 4: Pathophysiol of Neurol and Psych Disorders (Mar-May)
BSR6705	Neuro Core 5: Clinical Topics in Neuroscience" (*direct patient contact) (Apr)
BSR4701*	Journal Club: Neuroscience
BSR4702*	Works-in-Progress: Neuroscience
BSR5701**	Translational Neuroscience Seminar series
BSR1022	Rigor and Reproducibility
BSR1715***	Modern Statistics for Modern Biology (*see Note*** *below*)
BSR1007	Laboratory Rotation

***BIOSTATISTICS (must be completed in YEAR 1)**

While there are three first-year Biostats classes offered, **we prefer** that Neuroscience students take BSR 1715 (“Modern Statistics for Modern Biology”)—a course designed by three computational Neuroscientists and aimed at Neuroscience students. 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), but this is optional—there is an R-programming “boot camp” in the first few weeks of the Biostats course as well.

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. Please do not register for this course.

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 Corsera 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 (all courses below are **REQUIRED):**

BSR6717 Neural Data Science (Spring)
BSR4701* Journal Club: Neuroscience (Fall/Spring)
BSR4702* Works-in-Progress: Neuroscience (Fall/Spring)
BSR5701** Translational Neuroscience Seminar series (Fall/Spring)
BSR8000 Independent Research (prior to completing your Thesis Proposal Exam)
OR
BSR9000 Dissertation Research (after passing your thesis proposal exam)

Notes:
*BSR4701 and BSR4702 are required for all students to register for, and to attend, in their first two years of the program (regardless of when the thesis proposal exam is taken and passed, which is also during Year 2). Starting in Year 3, students are no longer required to register for, or to attend, these two courses. However, they remain optional for attending and presenting if desired (see course directors if interested).

BSR5701 is required for students to register for and attend, **each semester for all of the years in the program.

Additional Courses that are REQUIRED (taken anytime in Years 2-4)

BSR2705 Effective Science Communication (1 credit)
BSR3102 Writing Scientific Proposals (1 credit)
BSRXXXX 2-credits of "*Advanced Courses*" to be taken anytime during your graduate studies, from any MTA or program at Mount Sinai or any of our partner Institutions. Most Advanced Courses are 1-credit (so 2 x 1-credit courses would be required), but some courses are more than 1 credit.

One additional requirement for students entering their FIFTH-YEAR

BSR1023 "Responsible Conduct in Research Refresher" (REQUIRED for all 5th year students). The NIH mandates that all PhD students take this RCR refresher every four years.

***Note for students appointed to any of our T32 Training Grants.**

Each of our T32 training grants has grant-specific course requirements as part of the funded training program. If you are appointed to any of these T32 grants, please check with the PI of the grant ensure you comply with any special requirements.