Undergraduate Neuroscience

Major/Minor Requirements Worksheet

Bachelor of Science (BS)
(17 courses: 6 co-requisites + 10 Neuroscience courses (8 at 200-level or above)

Bachelor of Arts (AB)
(15 courses: 5 co-requisites + 10 Neuroscience courses (8 at 200-level or above)

Bachelor of Science for BME majors (BS2)
(17 courses: 7 co-requisites + 10 Neuroscience courses (8 at 200-level or above; BME 301L/NEUROSCI 301L is required; statistics per recommendation of BME)

Co-Requisite Courses

Neuroscience Course Requirements:

Five Foundational Courses
*Complete these courses before senior year.*

Use Checkboxes for planning:

Gateway (choose 1 required course)  
☐ NEUROSCI 101 Biological Bases of Behavior  
☐ NEUROSCI 102 Biological Bases of Behavior (TEAM)

Core Courses (2 required courses)  
*May be taken in either order.*  
☐ NEUROSCI 217D Introduction to Cognitive Neuroscience  
☐ NEUROSCI 223 Cellular and Molecular Neurobiology

Statistics (choose 1 required course)  
☐ Any STA 101-230 course  
☐ BIOL 304 Biological Data Analysis  
☐ PSY 204L & PSY 205L Quantitative Research Methods and Statistics for Psychological Science 1 & 2

Methods or Lab >300 (1 required course)  
*Take early in your program of study. See website.*  
☐ ONE Methods or Laboratory Course: ______________________

Five Electives
*May be completed concurrently with Core Courses (except when specific pre-requisites apply; see course descriptions).*

- AB majors must take ONE or more Intersection Courses (see website for complete list and details)
- BS majors may only count ONE intersection course
- ONE elective must be a 350-level or higher seminar
- Must complete TWO or more courses in Neuroscience before proposing NEUROSCI 391 Independent Scholarship 1 or NEUROSCI 493 Research Independent Study 1
- Only TWO Independent Scholarship or Research Independent Study courses may count

List Five electives planned for Neuroscience (BS/AB) major:

☐ 1.) ______________________
☐ 2.) ______________________
☐ 3.) ______________________
☐ 4.) ______________________
☐ 5.) ______________________

For both the AB & BS degree plans, no more than TWO of the 10 courses required for the Major (not including co-requisites) may be used to satisfy another academic plan.

Minor in Neuroscience

- minimum of 5 Neuroscience courses, with 4 at 200-level or higher
- 2 Foundation Courses (3 for BME BS1/NEUROSCI BS2 majors):
  - one Gateway Course: NEUROSCI 101 or 102  
  - one (or both) Core Courses: NEUROSCI 212 or 223  
  - BME BS1/NEUROSCI BS2 majors must take BME 301L/NEUROSCI 301L
- 3 Elective Courses (2 for BME BS1/NEUROSCI BS2 majors)

No more than TWO of the 5 courses required for the Minor may be used to satisfy another academic plan.

Name ____________________________
Date ____________________________
Expected Grad. Term ____________________
Student ID ________________________
Checked Co-requisites on back: ☐

Updated 3/27/2024 (DUS)  
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### Undergraduate Neuroscience

#### CO-REQUISITES for the Neuroscience Major

- For the BS, 6 courses are required
- For the AB, 5 courses are required
- For BS2 in Pratt, same as BS

#### BIOLOGY

- 1 course is required
  - BIOLOGY 20 earned by a score of 4 on College Board AP test.
  - BIOLOGY 21 earned by a score of 5 on College Board AP test.
  - BIOLOGY 201L *Gateway to Biology: Molecular Biology*
  - BIOLOGY 202L *Gateway to Biology: Genetics and Evolution*

#### CHEMISTRY

- 1 general chemistry course (or its equivalent) is required:
  - CHEM 20 earned by a score of 4 on College Board AP test.
  - CHEM 21 earned by a score of 5 on College Board AP test.
  - CHEM 101DL *Core Concepts in Chemistry*
  - CHEM 110DL *Honors Chemistry: Core Concepts in Context* (or course equivalent; higher numbered courses may substitute)

#### COMPUTER SCIENCE

- For BS Majors only: 1 of the following courses (or AP equivalent) is required (AB does not have this co-requisite):
  - A score of 4 or 5 on the College AP Test in Computer Science A
  - COMPSCI 20 earned by a score of 5 on the College AP test in Computer Science: Principles
  - COMPSCI 94 *Programming and Problem Solving*
  - COMPSCI 101L *Introduction to Computer Science*
  - COMPSCI 201L *Data Structures and Algorithms*
  - ENGINEERING 103L *Computational Methods in Engineering*
  - NEUROSCI 104L/COMPSCI 102L *Interdisciplinary Introduction to Computer Science*

#### MATHEMATICS

- For the BS & AB, 1 course required (or AP equivalent)
  - MATH 21 *Introductory Calculus I* earned by a score of 4 or 5 on the AP Calculus BC exam or a score of 5 on the AP Calculus AB exam
  - MATH 22 *Introductory Calculus 2* earned by a score of 5 on the AP Calculus BC exam
  - MATH 105L *Laboratory Calculus and Functions I* and MATH 106L *Laboratory Calculus and Functions II*
  - MATH 111L *Laboratory Calculus 1*
  - MATH 121 *Introductory Calculus 1*

### PHYSICS

- 2-course sequence of algebra- or calculus-based physics is required, which may be satisfied by one of the following sequences (or their equivalent)
  - College Board verification of a score of 4 or 5 on the AP Physics B exam for Mechanics and for Electricity and Magnetism, or AP Physics 1 and 2 exams
  - PHYSICS 25/26 indicating a score of 4 or 5 on the AP Physics C exam for Mechanics and for Electricity and Magnetism
  - PHYSICS 121L *General Physics I-A* (avail. F’24)
  - PHYSICS 122L (avail. S’25)
  - PHYSICS 151L *Introductory Mechanics*
  - PHYSICS 152L *Introductory Electricity, Magnetism, and Optics*
  - PHYSICS 161L *Fundamentals of Physics I*
  - PHYSICS 162L *Fundamentals of Physics II*
  - PHYSICS 164L *Introductory Experimental Physics I*
  - PHYSICS 165L *Introductory Experimental Physics II*

**NOTE:** summer courses taken away from Duke may satisfy co-requisites, provided that the DUS in neuroscience has pre-approved the course(s) prior to enrollment.