

Undergraduate Neuroscience

Major/Minor Requirements Worksheet for Classes matriculating 2013–forward

Name _____

Date _____

Expected Grad. Term _____

Student ID _____

Checked Co-requisites on back:

Bachelor of Science (BS)

[17 courses: 7 co-requisites + 10 Neuroscience courses (8 at 200-level or above)]

Bachelor of Arts (AB)

[16 courses: 6 co-requisites + 10 Neuroscience courses (8 at 200-level or above)]

Co-Requisite Courses [\[go to back\]](#)

Neuroscience Courses

Five Foundational Courses

Complete these courses before senior year.

Gateway (1 course)

NEUROSCI 101 *Biological Bases of Behavior*

Statistics (1 course)

- STA 101 *Data Analysis and Statistical Inference*
- STA 102 *Introductory Biostatistics*
- STA 111 *Probability and Statistical Inference*
- STA 130 *Probability and Statistics in Engineering*
- STA 230 *Probability*
- BIOL 204 *Biological Data Analysis*
- PSY 201 *Introduction to Statistical Methods in Psychology*
(must complete 2 NEUROSCI courses first)

Core Courses (3 courses)

- NEUROSCI 201 *Fundamentals of Neuroscience*
 - NEUROSCI 223 *Cellular and Molecular Neurobiology*
- And, ONE of the following TWO courses:
- NEUROSCI 211 *Brain and Behavior*
 - NEUROSCI 212 *Introduction to Cognitive Neuroscience*

No more than **TWO** of the 10 courses required for the Major in Neuroscience (not including co-requisites) may be used to satisfy another academic plan.

Five Electives

May be completed concurrently with Core Courses (note prerequisites carefully when considering any elective).

- BS majors can ONLY count one of the following *Intersection Courses*, but AB majors MUST take at least one: NEUROSCI 116S Neuroscience & Human Language, NEUROSCI 241D Authors in French & Francophone Modernity, NEUROSCI 242A Mimetic Brain, NEUROSCI 267 Neuroethics, NEUROSCI 278 (290-01) Sex/Gender-Nature/Nurture, NEUROSCI 290.01 Music & the Brain, NEUROSCI 290-1-01 Literature & Neuroscience: Flaubert's Brain, NEUROSCI 290A Neuroscience of Cognition & Culture, NEUROSCI 290S Brain, Self & Society, NEUROSCI 340S Educational Neuroscience, PHIL 212 Philosophy of Mind
- ONE elective must be a *Methods or Laboratory Course* (we recommend taking this early in your program of study)
- Before NEUROSCI 493 *Research Independent Study 1*, must complete TWO or more courses in neuroscience
- ONE elective must be a 350-level or higher seminar
- May count no more than one *Allied Elective*

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

- 1.) _____
- 2.) _____
- 3.) _____
- 4.) _____
- 5.) _____

Minor in Neuroscience

- minimum of 5 Neuroscience courses, with 4 courses at 200-level or higher
- 2 *Foundation Courses*:
 - the *Gateway Course*: NEUROSCI 101
 - one (or more) of the *Core Courses*: NEUROSCI 201, 211, 212 or 223
- 3 *Elective Courses* (*Allied Electives* do not count)

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

Undergraduate Neuroscience

CO-REQUISITES for the Neuroscience Major

- For the BS, 7 courses are required
- For the AB, 6 courses are required

BIOLOGY

- 1 course is required
- BIOLOGY 201L *Gateway to Biology: Molecular Biology*
OR
 BIOLOGY 202L *Gateway to Biology: Genetics and Evolution*

CHEMISTRY

- For the BS, general chemistry and organic chemistry is required, *UNLESS* computer programming is substituted for organic chemistry (see below for programming options)
- For the AB, general chemistry and computer programming is required (see below for programming options)

The first semester general chemistry requirement (BS and AB) may be satisfied by one of the following:

- CHEM 20 *General Chemistry Credit*
 CHEM 101DL *Core Concepts in Chemistry* (or course equivalent)
 CHEM 110DL *Honors Chemistry: Core Concepts in Context*

The second semester organic chemistry (BS) requirement may be satisfied by one of the following:

- CHEM 21 *General Chemistry Credit*
 CHEM 201DL *Organic Chemistry* (or course equivalent)

COMPUTER PROGRAMMING OPTION

- For the BS, computer programming may substitute for organic chemistry (see above)
- For the AB, 1 course in computer programming is required

For AB students and those BS students electing to substitute computer programming for organic chemistry, choose one of the following:

- COMPSCI 101L *Introduction to Computer Science*
 EGR 103L *Computational Methods in Engineering*
 NEUROSCI 503 *Computational Neuroengineering* (satisfies Laboratory or Methods course requirement)

MATHEMATICS

- For the BS, 2-course sequence of calculus is required
- For the AB, 1 course of calculus is required

The first semester calculus requirement (BS and AB) may be satisfied by one of the following:

- AP credit for MATH 21 *Introductory Calculus I*
 MATH 111L *Laboratory Calculus I*
 MATH 121 *Introductory Calculus I*
 MATH 105L *Laboratory Calculus and Functions I* and MATH 106L *Laboratory Calculus and Functions II*

The second semester calculus (BS) requirement may be satisfied by one of the following:

- AP credit for MATH 22 *Introductory Calculus II*
 MATH 112L *Laboratory Calculus II*
 MATH 122 *Introductory Calculus II*
 MATH 122L *Laboratory Calculus II with Applications*

Two semesters of higher MATH courses will satisfy the co-requisite in Mathematics (>122L)

PHYSICS

- 2-course sequence of algebra- or calculus-based physics is required
- College board verification of a score of 4 or 5 on the advanced placement Physics B exam for Mechanics and for Electricity and Magnetism
 PHYSICS 25/26 indicating a score of 4 or 5 on the advanced placement Physics C exam for Mechanics and for Electricity and Magnetism, respectively
 PHYSICS 141L *General Physics I* (or course equivalent)
 Physics 142L *General Physics II* (or course equivalent)

OR

- PHYSICS 151L *Introductory Mechanics* (or equivalent)
 PHYSICS 152L *Introductory Electricity, Magnetism, and Optics* (or course equivalent)

OR

- PHYSICS 161L *Fundamentals of Physics I* (or equivalent)
 PHYSICS 162L *Fundamentals of Physics II* (or equivalent)