Undergraduate Neuroscience
Major/Minor Requirements Worksheet
for Classes matriculating 2013-2015

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
☐ BIOLOGY 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
NEuroscience 223 and 211/212 may be taken in any order after completing NEUROSCI 201
☐ NEUROSCI 223 Cellular and Molecular Neurobiology
Choose one (or take both with one counting as elective):
☐ NEUROSCI 211 Brain and Behavior
☐ NEUROSCI 212 Introduction to Cognitive Neuroscience

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 288S Music as Biology, NEUROSCI 289 (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
- 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
  - OR
  - BIOLOGY 20 (earned by a score of 4 or 5 on the College Board AP test in Biology)

**CHEMISTRY**
- For the BS, general chemistry and organic chemistry is required, UNLESS computer science is substituted for organic chemistry
- For the AB, general chemistry and computer science is required

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
  - A score of 4 or 5 on the College Board AP test in Chemistry

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)
  - A score of 5 on the College Board AP test in Calculus BC

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

For AB students and those BS students electing to substitute computer science for organic chemistry, choose one of the following:
  - COMPSCI 101L Introduction to Computer Science
  - COMPSCI 290-01(7974) (103)/NEUROSCI 290-01(9790) (103) SPECIAL TOPICS IN NEUROSCIENCE (Lecture) COMPUTING AND THE BRAIN
  - EGR 103L Computational Methods in Engineering
  - NEUROSCI 503 Computational Neuroengineering (satisfies Laboratory or Methods course requirement)
  - OR
  - A score of 4 or 5 on the College Board AP test in Computer Science A or Computer Science Principles can also be used to satisfy this co-requisite

**MATHEMATICS**
- For the BS, 2-course sequence of calculus is required or AP equivalent
- For the AB, 1 course of calculus is required or AP equivalent

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
  - A score of 4 or 5 on the College Board AP test in Calculus AB or Calculus BC

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)
  - OR
  - A score of 5 on the College Board AP test in Calculus BC

**PHYSICS**
- 2-course sequence of algebra- or calculus-based physics is required
  - 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)
  - OR
  - College board verification of a score of 4 or 5 on the advanced placement Physics B exam for Mechanics and for Electricity and Magnetism, or AP Physics 1 and 2
  - OR
  - 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