

## NEUROSCIENCE BS Requirements (2019-20)

### Lower Division Courses

- Calculus:  MATH 11A (FWS) or MATH 19A (FWS) &  MATH 11B (FWS) or MATH 19B (FWS)
- General Chem:  CHEM 1A: General Chemistry (FWS) &  CHEM 1B: General Chemistry (FWS) &  CHEM 1C: General Chemistry & (FWS)  
 CHEM 1N: General Chem Lab (FWS)
- Biology:  BIOL 20A: Cell and Molecular Bio (FWS) &  BIOE 20B: Development and Physiology (FWS) &  BIOE 20C: Ecology & Evolution (FWS) &  BIOL 20L: Experimental Bio Lab (FWS)
- Organic Chem:  CHEM 8A: Organic Chemistry & (FW)  
 CHEM 8L: Organic Chemistry Lab (FW) &  CHEM 8B: Organic Chemistry (WS)
- Statistics:  STAT 5: Statistics (FWS) OR  STAT 7: Stats for the Biological, Environmental, and Health Sciences & (FWS)  
 STAT 7L: Stats Lab (FWS)
- Physics:  PHYS 6A: Introductory Physics I & (FWS)  
 PHYS 6L: Introductory Physics I Lab (FWS) &  PHYS 6C: Introductory Physics III (FS)

**After passing the classes shaded above with a C or better, students can submit a Petition to Declare. Students in their 6th quarter may petition while their last course is in progress. All students must declare by the 6th quarter deadline.**

Declared

### Upper Division Courses

Complete the major with the following:

#### CORE COURSES:

BIOL 105: Genetics

BIOL 100: Biochemistry &  BIOL 101: Molecular Biology

OR

BIOC 100A: Biochemistry & Molecular Bio &  BIOC 100B: Biochemistry & MB &  BIOC 100C: Biochemistry & MB

BIOL 101L: Molecular Biology Lab OR  BIOL 102L: Toxic RNA Lab I

BIOL 110: Cell Biology

BIOL 125: Intro to Neuroscience

BIOL 126: Advanced Molecular Neuroscience

#### ELECTIVES: 2 UPPER DIVISION ELECTIVES (ONLY ONE OF WHICH MAY BE A 3-UNIT COURSE: BIOL 112, 116 or 117)

BIOC 100C: Biochemistry

BIOE 131/L: Animal Physiology/Lab

BIOL 111A: Immunology

BIOL 111B: Immunology

BIOL 112: Virology

- BIOL 114: Cancer Cell Biology
- BIOL 115: Eukaryotic Molecular Biology
- BIOL 116: Advanced Topics in Cell Biology
- BIOL 117: Global Health & Neglected Diseases
- BIOL 120: Developmental Biology
- BIOL 127: Mechanisms of Neurodegenerative Diseases
- BIOL 128: Developmental Neurobiology
- BIOL 130: Human Physiology
- BIOL 140: The RNA World
- BME 110: Computational Biology Tools
- BME 130: Genomes
- BME 160: Research Programming for Biologists & Biochemists
- BME 178: Stem Cell Biology
- PHYS 180: Biophysics
- PSYC 121: Perception
- PSYC 123: Cognitive Neuroscience

**LAB: 1 LAB COURSE REQUIRED**

- BIOL 100L: Biochemistry Lab
- BIOL 103L: Toxic RNA Lab II
- BIOL 105L: Eukaryotic Genetics Lab
- BIOL 109L: Yeast Molecular Genetics Lab
- BIOL 115L: Eukaryotic Molecular Biology Lab
- BIOL 120L: Developmental Biology Lab
- BIOL 121L: Environmental Phage Biology Lab
- BIOL 186L: Undergraduate Research in MCD Biology

**DISCIPLINARY COMMUNICATION & SENIOR EXIT REQUIREMENTS ARE SATISFIED BY COMPLETING ONE 5-UNIT LAB COURSE FROM THE ABOVE LIST.**

- DC/SENIOR EXIT COMPLETE

**Please refer to your 2019-20 UCSC General Catalog for more information or clarification**