

## Neuroscience Minor Requirements (Spring 2019)

### Student Checklist

(22 total credits; 12 credits must be discrete to the minor)

#### I. Three Core Neuroscience Courses (10-12 credits)

- 1. Bio/Psych 252: Introduction to Neuroscience
- 2. One Neuroscience course *with laboratory* (select from options listed in this box):

Psy 350 – Behavioral Neuroscience	Bio 380 – Behavioral Genetics
Psy 355 – Cognitive Neuroscience	Bio 422 – Neurobiology

- 3. One advanced Neuroscience course (select from options listed in this box):

Psy 350 – Behavioral Neuroscience	Bio 380 – Behavioral Genetics
Psy 355 – Cognitive Neuroscience	Bio 422 – Neurobiology
Psy 380 – Drugs & Behavior	Bio 490 – Adv Topics in Biology*
Psy 410 – Advanced Topics Neuroscience	Chem 421 – Neurochemistry (2 credits)

#### II. Three Neuroscience Electives (10-12 credits)

Choose approved electives from table below. At least one course must be from Biology or Chemistry. Biology/Chemistry/BCMB majors must take at least one course *outside* of Biology or Chemistry.

- 1. Course # and title: \_\_\_\_\_
- 2. Course # and title: \_\_\_\_\_
- 3. Course # and title: \_\_\_\_\_

Approved Neuroscience electives		
Department	Courses without lab	Courses with lab
Biology	Bio 320: Human Genes & Disease Bio 490: Advanced Topics in Biology*	Bio 202: Biological Core Mechanisms II** Bio 352: Animal Behavior Bio 380: Behavioral Genetics Bio 412 Developmental Biology Bio 422: Neurobiology
Chemistry	Chem 330: Structural Biochemistry Chem 421: Neurochemistry (2 credits)	
Computer Science	CS 369: Artificial Intelligence	
World Lang	WL 240: Introduction to Linguistics	
Philosophy	Phil 312: Philosophy of Language Phil 313: Philosophy of Mind	
Physics	Phys 390: Biomedical Imaging	
Psychology	Psy 220: Think/Memory/Prob Solving Psy 375: Health Psychology Psy 380: Drugs & Behavior Psy 400: Advanced Topics Psychology* Psy 410: Advanced Topics Neuroscience	Psy 315: Cognition Psy 350: Behavioral Neuroscience Psy 355: Cognitive Neuroscience
Thesis	Senior Thesis in Neuroscience, completed in any major department (topic to be approved in advance by the Neuroscience Program Committee)	

\* This course counts only in the semesters that it focuses on Neuroscience.

\*\*Bio 202 does not count as a neuroscience elective for Biology/BCMB majors

## Advice for Students Interested in Pursuing the Neuroscience Minor

The Neuroscience minor requires students to take courses in multiple disciplines (see arrowheads below). Most courses have specific prerequisites, thus students need to plan their schedules to ensure that they take relevant prerequisite courses in time. Careful planning is *particularly* important for students who do not intend to major in Biology, BCMB, or Psychology.

- All students are required to take Introduction to Neuroscience (Bio/Psych 252).
- All students are required to take one approved 200- 400-level Biology or Chemistry course.
- Biology/Chemistry/BCMB majors are required to take at least one approved course *outside* of these departments (e.g., in Psychology, Foreign Languages, Philosophy, etc.).
- Biology 202 does not count as a neuroscience elective for Biology BCMB majors

It is the student's responsibility to verify that the Neuroscience minor requirements do not conflict with the requirements of the student's major or other minor.

### ***Important Courses for the Minor that Have Multiple Prerequisites:***

Important Course	Reason Important	Prerequisites
Bio/Psych 252 (Intro to Neuroscience)	Required for minor	Psy 100 (Intro to Psychology) Bio 110 (Biological Investigations)
Bio 202 (Biological Core Concepts II)	Required for 300/400-level Biology courses	Bio 110, Chem 120 (Gen. Chemistry II, may be taken concurrently)
Psy 300 (Psych Methodology)	Required for 300/400-level Psychology courses	Psy 100, Psy 200 (Statistics I)
Various advanced electives (e.g. Chem, CS, Philosophy)	Options for satisfying neuro elective requirement	Prereqs vary; see course catalog for each course's specific prerequisites

**NOTE:** Students will *not necessarily* need to take **BOTH Bio 202 and Psy 300**. However, students should be aware of the prerequisites for these courses if they select upper division courses in either discipline.

### ***Example Four Year Plan for Students Interested in Neuroscience Minor:***

Year	Fall Semester	Spring Semester
<b>1<sup>st</sup> Year</b>	Bio 110	Psy 100 Psy 200 (or other stats class)
<b>Sophomore</b>	Bio/Psych 252 (Intro Neuroscience) Chem 110 (only offered Fall)	Bio 202 (Biological Core Mechanisms II) Chem 120 (only offered spring)
<b>Junior</b>	Core Neuroscience course Neuroscience Elective      ← →	Overseas program
<b>Senior</b>	Neuroscience Elective Core Neuroscience lab course      ← →	Neuroscience Elective

**NOTE:** Up to three of the required courses for the Neuroscience minor may also count toward the student's major, but at least 12 credits (three courses) must be discrete to the minor

For more information, contact Todd Watson ([toddw@lclark.edu](mailto:toddw@lclark.edu)), Tamily Weissman-Unni ([weissman@lclark.edu](mailto:weissman@lclark.edu)), or Yueping Zhang ([y Zhang@lclark.edu](mailto:y Zhang@lclark.edu)).