

UCLA Undergraduate Interdepartmental Program for Neuroscience

<https://www.neurosci.ucla.edu/> | Advisors: Jaclyn Robbin and Aftin Whitten (neurosci@ucla.edu)

Neuroscience (B.S.): The scientific study of the brain requires the skills of many different disciplines. Thus, this major is interdisciplinary and interdepartmental. The faculty are biologists, psychologists, biochemists, mathematicians, and engineers, all of whom share a fascination with the function of the brain. The brain is studied at many different levels, including the molecular and cellular levels, the level of systems of neurons, and the behavioral level.

| Preparation for the Neuroscience Major (Courses in BOLD must be completed before beginning the Neuroscience M101/102 series or declaring the major.) | |
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| Life Sciences | Life Sciences 7A, 7B, 7C, and 23L |
| Math <i>Choose one Math series from the following options.</i> | Life Sciences 30A, 30B, and Statistics 13 (or Life Sciences 40) or Math 3A, 3B, and 3C or Math 31A, 31B, and 32A |
| Physics <i>Choose one Physics series from the following options.</i> | Physics 5A, 5B, and 5C or Physics 1A, 1B, 1C, 4AL, and 4BL *Physics does not require Physics 5B as a pre-requisite for Physics 5C |
| Chemistry <i>Choose one Chemistry series from the following options.</i> | Chemistry 14A, 14B, 14BL, 14C, 14CL, and 14D or Chemistry 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL |
| Statistics <i>Choose one Statistics course from the following options.</i> | Statistics 10 or Statistics 13 or Life Sciences 40 *LS 30A/B students must take Stats 13 or LS 40 **Biostats 100A or 110A or Psych 100A may be substituted |

Important Notes: Preparation for the Neuroscience Major

- Each course must be passed with a C- or higher.
- All courses must be taken for a letter grade.
- Student must complete the preparation with an overall 2.0 GPA.
- All honors section of a course listed above is also acceptable.
- Students who repeat more than two (2) preparation classes or any preparation class more than once are subject to dismissal from the major.
- Refer to the UCLA General Catalog (<http://catalog.registrar.ucla.edu/index.html>) for course descriptions and requisites.

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10 upper division courses; Approx. 43 units

-The upper division courses of the major must be completed with a 2.0 GPA overall

-No more than eight (8) courses total may be from any one department

| NEUROSCIENCE REQUIRED CORE (5 Courses) |
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| Neuroscience M101A (Fall; Prerequisites: LS 7C, Chem 14C/30A, Physics 5C/1B) |
| Neuroscience 102 (Fall; Prerequisites: LS 7C and concurrently with NEUROSC M101A. If offered in summer, may take prior to NEUROSC M101A.) |
| Neuroscience M101B (Winter; Prerequisite: NEUROSC M101A with a C- or better) |
| Neuroscience M101C (Spring; Prerequisite: NEUROSC M101A with a C- or better) |
| Chemistry 153A (Prerequisite: Chem 14D/30B) |

| NEUROSCIENCE ELECTIVE OPTIONS (3 COURSES) (Complete one elective from each category. Full list of electives on neurosci.ucla.edu .) | |
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| Examples of Behavioral and Cognitive Neuroscience Electives | -Disability Studies M139, Music Industry M103 -Neuroscience M119L, CM123*, M161, M170, C172, M176*, C177*, 178, 179, M187*, 191A -Physiological Science M106*, CM123*, C130*, C144*, 175*, M176*, M181* -Psychology 110, 112A, 112B-C*, 118, 119A*, 119B*, 119C-F, 119I*, 119J*, M119L, 119M*, M119O, 119P, 119R, 119S*, 119U, M119X*, 120A, 120B*, 124A-B, 124C*, 124D, 124K, 127B, 137A*, M139, 161, 164*, M166* -Psychiatry 174, 176, M182 |
| Examples of Systems and Integrative Neuroscience Electives | -Neuroscience M119N, CM123*, M135, M145*, M176*, C177*, M187*, 191B -Physics C186* -Physiological Science M106*, CM123*, C126*, C127*, C130*, M135, 138, C144*, M145*, 146*, 147*, 173, M176*, 177, M181* -Psychology 112B*, 112C*, M117J*, 119A*, 119B*, 119I*, 119J*, 119M*, M119N, 119Q, 119S*, M119X*, 120B*, 124C*, 137A*, 162*, 164*, M166* |
| Examples of Molecular, Cell, and Developmental Neuroscience Electives | -Neuroscience M145*, 150, C177*, 180, 181, 182, 186, M187*, 191C -Physics C186* -Physiological Science M106*, 121, C126*, C127*, M145*, 146*, 147*, 174, 175*, M181* -Psychology 119A*, 162*, M166* |
| *Electives are cross-listed in another category, but can only be used once. Please pay careful attention to the enrollment notes on the Registrar's Schedule of Classes. Many classes are often open to all students during Summer Sessions. To substitute a class: Students must be enrolled in the class before it will be substituted. | |

| RESEARCH CAPSTONE OPTIONS (2 COURSES) | | |
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| Option 1: Lab Methods | Option 2: Independent Research | Option 3: DOPA-Team |
| <p>NEUROSC 101L: Pre-reqs: NEUROSC M101A and NEUROSC M101B (NEUROSC M101B may be taken concurrently with NEUROSC 101L.)</p> <p>Notes: NEUROSC 101L is offered only in Winter Quarter.</p> <p><u><i>PSYCH 116A or B is an acceptable substitution for NEUROSC 101L.</i></u></p> <p>Additional Major Elective: Students who choose the Lab Methods Capstone option must take a total of 4 neuroscience upper division electives with at least one elective from each elective category. The 4th elective may be from any category.</p> | <p>NEUROSC 199A & 199B or NEUROSC 198A & 198B[^]: Pre-reqs: NEUROSC M101A and SRP-99 or departmental 199 research contract in a neuroscience related lab under the same faculty mentor who has an Academic Senate title.</p> <p>Notes: Must be consecutive quarters; not offered during Summer. Poster required at Neuroscience Poster Session; 3.0 GPA min.</p> <p>NEUROSC 199A and NEUROSC 199B- Project Brainstorm Option: Students who are interested in applying for NEUROSC 199A and 199B- Project Brainstorm should apply in fall quarter when applications are made available. Must be approved by faculty mentor via application process. Must be taken in 2 consecutive Winter and Spring Quarters. Space is extremely limited. For more information, contact brainstorm@ucla.edu.</p> | <p>NEUROSC C177 and NEUROSC 192C: Pre-reqs: NEUROSC M101A and approval by instructors via application process.</p> <p>Notes: Students who are interested in applying for the DOPA-Team Capstone must apply in fall quarter when applications are made available.</p> <p>If accepted, students enroll in NEUROSC C177 in Winter Quarter and NEUROSC 192C in Spring Quarter. Must be taken in 2 consecutive Winter and Spring quarters. Poster required at Neuroscience Poster Session.</p> <p>Space is extremely limited. For more information, contact instructors, Rafael Romero, raromer@ucla.edu, and Chris Evans, cevans@ucla.edu.</p> |

[^]Only for students pursuing Departmental Honors. Additional honors requirements: two departmental honors contracts and NEUROSC 191H. Please visit <https://www.neurosci.ucla.edu/program/departmental-honors/> for specific details.