To be adopted:

Proposed Changes to the B.A. and B.S. Degrees in Neuroscience

PRESENT:

PROPOSED:

Transfer Students

Transfer applicants must have a minimum GPA of 2.70. Transfer applicants must further meet two of the three curricular preparation requirements below.

1. Math 9A and 9B or equivalent.
2. Two semesters of a single lab-based science discipline (e.g. Chemistry or Biology or Physics).
3. The equivalent of Math 9C plus one semester of Vector Calculus or Linear Algebra.

University Requirements

See Undergraduate Studies section.

University Requirements

[no change]

College Requirements

College breadth requirements vary depending on which college is chosen to award the degree. For details on breadth requirements, see the Colleges and Programs section of this catalog. Students are urged to consult their advisor regarding requirements. The following restrictions and additions apply to college breadth requirements for the Neuroscience major.

College Requirements

[no change]

For the College of Humanities, Arts, and Social Sciences

Humanities Foreign language at level 4 or above for the B.A. may be used to fulfill up to 8 units of the Humanities breadth requirement.

Humanities [no change].
Social Sciences  Psychology courses may not be used as part of the Social Sciences breadth requirement if a Biology course is used to meet any part of the Natural Sciences and Mathematics breadth requirement.

Foreign Language  In fulfilling the Foreign Language breadth requirement for both the B.A. and B.S. degrees, a modern language such as Spanish, Russian, Chinese, German, or French must be used.

Natural Sciences and Mathematics  The Neuroscience Core in the Neuroscience major satisfies the Natural Sciences and Mathematics breadth requirement.

For the College of Natural and Agricultural Sciences

Humanities  For the B.S. degree, 16 units instead of 12 units are required to fulfill the Humanities breadth requirement. PHIL 134 and PHIL 137 are recommended.

Social Sciences  For the B.S. degree, 16 units instead of 12 units are required to fulfill the Social Sciences breadth requirement. Psychology courses not required or approved for the Neuroscience major may be used in meeting the Social Sciences breadth requirement.

Foreign Language  In fulfilling the Foreign Language breadth requirement for the B.A. degree, a modern language such as Spanish, Russian, Chinese, German, or French must be used. Further, fourth-quarter level proficiency in one foreign language (not level 2 in two languages) is required.

Natural Sciences and Mathematics  The Neuroscience Core in the Neuroscience major satisfies the Natural Sciences and Mathematics breadth requirement.

Major Requirements

1. Neuroscience Core (66-72 units; satisfies the Life Sciences Core required for some majors in the College of Natural and Agricultural Science)
Sciences). Up to 12 units of upper-division life sciences courses (for this major, courses from the departments of Biochemistry, Biology, Cell Biology and Neuroscience, and Entomology) not being used to satisfy the core may be taken prior to completion of the core; permission from the program chair or the program chair’s designate is required to take upper-division units in excess of these 12 units.

2. Upper-division requirements
Students must complete all required Life Science Core courses with a grade of “C-” or better and with a cumulative GPA in the courses of at least 2.0. Grades of “D” or “F” in two required courses, either separate courses or repetitions of the same course, are grounds for discontinuation from the major.

a) BIOL 005A, BIOL 05LA, BIOL 005B, BIOL 005C (BIOL 002 and BIOL 003 may be substituted for BIOL 005A, BIOL 05LA, and BIOL 005B with advisor’s approval.)

b) PSYC 011 or STAT 040 or STAT 100A

b) [no change]

c) MATH 008B or MATH 009A or MATH 09HA; and MATH 009B or MATH 09HB

c) [no change]

d) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC (or CHEM 01HA and CHEM 1HLA, CHEM 01HB and CHEM 1HLB, CHEM 01HC and CHEM 1HLC); CHEM 112A, CHEM 112B, CHEM 112C

d) [no change]

e) PHYS 002A, PHYS 002B, PHYS 002C, PHYS 02LA, PHYS 02LB, PHYS 02LC; or PHYS 040A, PHYS 040B, PHYS 040C

e) [no change]

f) BCH 100 or BCH 110A

f) [no change]
a) First Tier (14 units)
(1) CBNS 106 with a grade of C- or better
(2) CBNS 120/PSYC 120
(3) CBNS 120L/PSYC 120L or CBNS 130L
(4) CBNS 124/PSYC 124

b) Second Tier (at least 12 units for the B.A. or at least 20 units for the B.S.)
BIOL 178; CBNS 101, CBNS 116, CBNS 121/PSYC 121, CBNS 125/PSYC 125,
CBNS 126/PSYC 126, CBNS 127/PSYC 127; CBNS 129, PSYC 112, PSYC 117, PSYC 129

c) Third Tier (additional units to reach a total of 36 units for the B.A. or 52 units for the B.S.)
Select from upper-division courses listed under Neuroscience Core, Second Tier above not used to satisfy those requirements, and the additional courses listed below. The combined number of units taken under First Tier, Second Tier, and Third Tier must total either 36 if the B.A. is sought or 52 if the B.S. is sought.
BCH 102, BCH 110B, BCH 110C, BCH 120; BIOL 100/ENTM 100, BIOL 102,
BIOL 105, BIOL 107A, BIOL 108, BIOL 109, BIOL 110, BIOL 151, BIOL 160,
BIOL 161A, BIOL 161B; BIOL 162/ENTM 162; BIOL 171, BIOL 171L, BIOL 173/
ENTM 173, BIOL 175, BIOL 185P; CBNS 108, CBNS 150/ENTX 150, CBNS 165,
CBNS 169; up to 9 units from CBNS 194, CBNS 197 and/or CBNS 199; CS 170;
PHYS 139L; PSYC 115, PSYC 130, PSYC 132, PSYC 134, PSYC 135, ANTH 146/
PSYC 146

Note No courses other than those listed may be used in the major unless specifically approved by the program chair or the program chair’s designate.

**JUSTIFICATIONS:**
The overall goal of the changes is to ensure that the Undergraduate Neuroscience Program attracts the best students and allows those students to progress to graduation with minimal difficulty and maximal fairness. Discrepancies between this program’s requirements and those
of other life science majors has led to unsustainable growth of the major and the inclusion of marginal students in the major. Further, differences in requirements between the CHASS and CNAS students in the major have also allowed students to enter the major who are insufficiently prepared for the major. We propose 2 specific changes to enhance the quality and decrease the quantity of students in the neuroscience major.

1) The Neuroscience program currently has very limited progress standards for students progressing through the major. Students in the neuroscience major can continue to progress in the major and graduate even when they have performed poorly in vital core courses. Furthermore, these less-stringent standards have led to some students viewing neuroscience as a “backup” major in the life sciences that they transfer into when they are performing poorly in another life-science major. In some cases, these students then return to the original major. We propose to use progress standards that are similar to those for other life-science majors.

2) In addition, it is clear that a subset of students who enter the major from outside UCR are using the major’s current requirements to evade more stringent requirements in other life sciences majors and between CNAS and CHASS. The requirements for incoming transfer students to the major are currently different for neuroscience students in CNAS and in CHASS. This is both unfair to students, and leads to college-hopping by some of the students to take advantage of the lack of explicit major requirements for neuron in CHASS. The CNAS advisers have developed and are using a set of criteria, developed by Mike McKibben, that are similar to the requirements for transfer into other life science majors. We propose to make the requirements for transfer students uniform for all students in the major, both CNAS and CHASS.

APPROVALS:

Approved by the Committee in Charge of the Neuroscience Program: 3/11/13
Approved by the faculty of the Department of Cell Biology and Neuroscience: 3/19/13
Approved by the faculty of the Department of Psychology: 3/14/13
Approved by the Executive Committee of the College of Natural and Agricultural Sciences: 3/12/13
Approved by the Executive Committee of the College of Humanities, Arts, and Social Sciences: 3/27/13
Approved by the Committee on Educational Policy: 5/10/13