EXECUTIVE COMMITTEE
COLLEGE OF HUMANITIES, ARTS, AND SOCIAL SCIENCE
COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES
REPORT TO THE RIVERSIDE DIVISION
MAY 24, 2022

To be adopted:

Proposed Changes to Neuroscience

PRESENT:	**PROPOSED:**
Major	
The Neuroscience major is an intercollege major offered by the colleges of Humanities, Arts, and Social Sciences and Natural and *(REMOVE "Extra Space" in catalog page 494)* Agricultural Sciences. It offers upper-division courses that contribute to an academic program emphasizing the functioning of nervous systems at the molecular, cellular, system, behavioral, and cognitive levels. Some of the topics covered include neuroanatomy, neurophysiology, and neurochemistry in humans and other animals; neural mechanisms underlying sensory system function and perception; neural organization of behavior; development of the nervous system; and neural mechanisms of learning and memory.	The Neuroscience major is an intercollege major offered by the colleges of Humanities, Arts, and Social Sciences and Natural and Agricultural Sciences. It offers upper-division courses that contribute to an academic program emphasizing the functioning of nervous systems at the molecular, cellular, system, behavioral, and cognitive levels. Some of the topics covered include neuroanatomy, neurophysiology, and neurochemistry in humans and other animals; neural mechanisms underlying sensory system function and perception; neural organization of behavior; development of the nervous system; and neural mechanisms of learning and memory.
Both a B.A. and a B.S. degree are offered by each college. When students declare the major, they choose from which college they wish to have their degree awarded. Students whose degrees are awarded by the College of Humanities, Arts, and Social Sciences are advised in and have their records maintained by the Department of Psychology; students whose degrees are awarded by the College of Natural and Agricultural Sciences are advised in and have their records maintained by the CNAS Academic Advising Center. Breadth requirements vary by college; and students must fulfill the breadth requirements of the college they choose.	[no change]
For information about student advising, contact the CNAS Academic Advising Center, (951) 827-7294, or the Department of Psychology,	[no change]

(951) 827-5386, University of California, Riverside, Riverside, CA 92521.

Change of Major Criteria

Students must be in good academic standing at the time the Change of Major Petition is filed. Students must successfully repeat any outstanding Life Science Core course prior to acceptance into the major.	[no change]

2nd and 3rd Quarter Freshmen

The following math and science courses must be completed with a grade of C– or better: CHEM 001A, CHEM 01LA, CHEM 001B, CHEM 01LB, MATH 007A or MATH 009A	[no change]

4th Quarter Freshman and Sophomore (up to 89 earned units)

The following math and science courses must be completed with a grade of C– or better: CHEM 001A, CHEM 01LA, CHEM 001B, CHEM 01LB, CHEM 001C, CHEM 01LC BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, MATH 007A or MATH 009A, MATH 007B or MATH 009B	[no change]

Junior (90 - 134 earned units)

The following math and science courses must be completed with a grade of C– or better. Grades of D– or higher are acceptable for courses marked with an asterisk (*): CHEM 001A, CHEM 01LA, CHEM 001B, CHEM 01LB, CHEM 001C, CHEM 01LC BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C*, MATH 007A or MATH 009A, MATH 007B or MATH 009B and completion of at least one of the following sequences with no grade lower than a C–: CHEM 008A and CHEM 08LA or CHEM 08HA and CHEM 8HLA or CHEM 12A, CHEM 008B and CHEM 08LB or CHEM 08HB and CHEM 8HLB or CHEM 12B, CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 8HLC or CHEM 12C * PHYS 002A, PHYS 02LA, PHYS 002B, PHYS 02LB, PHYS 002C*, PHYS 02LC*	[no change]

Senior (135 + units)

The following math and science courses must be completed with grade of C– or better. Grades of D– or higher are acceptable for courses marked with an asterisk (*): CHEM 001A, CHEM 01LA, CHEM 001B, CHEM 01LB, CHEM 001C, CHEM 01LC, BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C*, MATH 007A MATH 009A, MATH 007B or MATH 009B, CHEM 008A and CHEM 08LA or CHEM 08HA and CHEM 8HLA or CHEM 12A, CHEM 008B and CHEM 08LB or CHEM 08HB and CHEM 8HLB or CHEM 12B, CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 8HLC or CHEM 12C *, PHYS 002A, PHYS 02LA, PHYS 002B, PHYS 02LB, PHYS 002C*, PHYS 02LC*, PSYC 011* or ~~STAT 040~~* or ~~STAT 100A~~*, BCH 100* or BCH 110A*, CBNS 106	The following math and science courses must be completed with grade of C– or better. Grades of D– or higher are acceptable for courses marked with an asterisk (*): CHEM 001A, CHEM 01LA, CHEM 001B, CHEM 01LB, CHEM 001C, CHEM 01LC, BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C*, MATH 007A MATH 009A, MATH 007B or MATH 009B, CHEM 008A and CHEM 08LA or CHEM 08HA and CHEM 8HLA or CHEM 12A, CHEM 008B and CHEM 08LB or CHEM 08HB and CHEM 8HLB or CHEM 12B, CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 8HLC or CHEM 12C *, PHYS 002A, PHYS 02LA, PHYS 002B, PHYS 02LB, PHYS 002C*, PHYS 02LC*, PSYC 011* or <u>STAT 004</u>* or <u>STAT 010</u>*, BCH 100* or BCH 110A*, CBNS 106
GPA in upper division courses applied to the Neuroscience Major (Tier 1, 2, and 3) must be 2.00 or higher.	[no change]
Transfer Students	
Transfer applicants must have a minimum GPA of 2.70 (currently 2.70, but can be adjusted upward for selectivity by the college of Majors). Transfer applicants must further meet two of the curricular preparation requirements below.	[no change]
1. Math 007A or Math 009A; MATH 007B or MATH 009B or equivalent.	[no change]
2. Two semesters of a single lab-based science discipline (e.g. Chemistry or Biology or Physics).	[no change]
3. The equivalent of Math 009C plus one semester of Vector Calculus or Linear Algebra.	[no change]
Individual Majors can (and do) set their particular curricular requirements to be more rigorous.	[no change]
University Requirements	
See Undergraduate Studies section.	[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.

[no change]

The following restrictions and additions apply to college breadth requirements for the Neuroscience major.

[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.

[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.

[no change]

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.

[no change]

Natural Sciences and Mathematics

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

[no change]

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

[no change]

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.	[no change]

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.	[no change]

Natural Sciences and Mathematics

The Neuroscience Core in the Neuroscience major satisfies the Natural Sciences and Mathematics breadth requirement.	[no change]

Major Requirements

1. Neuroscience Core (66-72 units; satisfies the Life Sciences Core required for some majors in the College of Natural and Agricultural 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.	[no change]
2. 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	[no change]

discontinuation from the major.

a) BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C (BIOL 002 and BIOL 003 may be substituted for BIOL 005A, BIOL 05LA, and BIOL 005B with advisor's approval.)	[no change]
b) PSYC 011 or STAT 004 or STAT 010	[no change]
c) MATH 007A or MATH 009A or MATH 09HA; MATH 007B or MATH 009B or MATH 09HB	[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 008A and CHEM 08LA or CHEM 08HA and CHEM 8HLA or CHEM 12A, CHEM 008B and CHEM 08LB or CHEM 08HB and CHEM 8HLB or CHEM 12B, CHEM 008C and CHEM 08LC or CHEM 08HC and CHEM 8HLC or CHEM 12C	[no change]
e) PHYS 002A, PHYS 002B, PHYS 002C or PHYS 02HA, PHYS 02HB, PHYS 02HC; PHYS 02LA, PHYS 02LB, PHYS 02LC or PHYS 02HLA, PHYS 02HLB, PHYS 02HLC; or PHYS 040A, PHYS 040B, PHYS 040C or PHYS 040HA, PHYS 040HB, PHYS 040HC	[no change]
f) BCH 100 or BCH 110A, or BCH 100H or BCH 110HA	[no change]

3. Upper-division requirements

Students must complete all required First Tier and Second Tier 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 discon-tinuation from the major.	[no change]
a) First Tier (14 units)	[no change]
(1) CBNS 106	[no change]

(2) CBNS 120/PSYC 120	[no change]
(3) CBNS 120L/PSYC 120L or PSYC 122L or CBNS 130L/PSYC 123L	[no change]
(4) CBNS 124/PSYC 124	[no change]
b) Second Tier (at least 12 units for the B.A. or at least 20 units for the B.S.)	[no change]
BIOL 178; CBNS 101, CBNS 116, CBNS 121/ PSYC 121, PSYC 122, CBNS 125/PSYC 125, CBNS 126/PSYC 126, CBNS 127/PSYC 127; CBNS 129, PSYC 112, PSYC 117, PSYC 129	[no change]
c) Third Tier (additional units to reach a total of 36 units for the B.A. or 44 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 addition-al 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 44 if the B.S. is sought.	[no change]
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	[no change]
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.	[no change]

Justification:

The Statistics department renumbered STAT courses to better reflect the course level, as well as, the true sequencing of courses. STAT 100A was renumbered to STAT 010, and STAT 040 was renumbered to STAT 004, with an effective term of Fall 2021.

Approvals:

Approved by the faculty of the faculty of the Neuroscience Program:	March 14, 2022
Approved by the Executive Committee of the College of Natural and Agricultural Sciences:	March 1, 2022
Approved by the Executive Committee of the College of Humanities, Arts, and Social Sciences:	March 15, 2022
Approved by the Committee on Educational Policy:	April 6, 2022