Bachelor of Science in Neuroscience

The Bachelor of Science degree in Neuroscience provides a strong foundation in the core sciences and related mathematical disciplines, along with the opportunity for training in biology, chemistry, computer science, mathematics, physics, or psychology. Distinctive features of the program include an emphasis on developing the quantitative, statistical, mathematical, and computational skills required in neuroscience, and meaningful hands-on laboratory experience.

Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

a. Core curriculum
b. Skills and experience flags:
   a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
   b. Quantitative reasoning: one flagged course
   c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

c. At least 21 semester hours of upper-division coursework, including 18 semester hours in biology and neuroscience, must be completed in residence at the University. All students must complete at least 36 semester hours of upper-division coursework.

d. Ten hours of biological sciences chosen from the following sequences:
   a. Biology 311C and 311D, or 315H and 325H, or 325L and 326L
   b. Biology 325 and 326
   c. Biology 325 and 326

f. Three additional majors-level courses selected from one of the following sequences:
   a. Biology: Biology 325 or 325H, 320, 344, 350, and 370
   b. Chemistry: Chemistry 328M and 128K, 328N and 128L 353 or 353M, and Biochemistry 369
   c. Physics: Physics 345, 353K, 355

h. Three additional majors-level courses selected from one of the following sequences:
   a. Biology: Biology 325 or 325H, 320, 344, 350, and 370
   b. Chemistry: Chemistry 328M and 128K, 328N and 128L 353 or 353M, and Biochemistry 369
   c. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E

Option I: Neuroscience Scholars

d. Mathematics 408C, or 408N or 408R and 408S; Statistics and Data Sciences 320E

e. An eight hour physics sequence chosen from the following:
   a. Physics 317K, 105M, 317L, and 105N
   b. Physics 303K, 105M, 303L, and 105N
   c. Physics 301, 101L, 316, and 116L
   f. Chemistry 301 or 301C, 302 or 302C, and 204
   g. Biology 311C and 311D, or 315H and 325H, and 206L

f. Three additional majors-level courses selected from one of the following sequences:
   a. Biology: Biology 325 or 325H, 320, 344, 350, and 370
   b. Chemistry: Chemistry 328M and 128K, 328N and 128L 353 or 353M, and Biochemistry 369
   c. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E

Option II: Neuroscience Honors

d. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301C and 302C; and an additional three-hour honors-designated course from a department in the College of Natural Sciences; credit earned by examination may not be counted toward this requirement.

e. Three hours of statistics chosen from the following: Statistics and Data Sciences 321, 325H, or 320E; other statistics courses may be approved by the departmental honors advisor.

f. Chemistry 204 and Biology 206L

h. Three additional majors-level courses selected from one of the following sequences:
   i. Biology: Biology 320, 344, 350, and 370
   ii. Chemistry: Chemistry 328M and 128K, 328N and 128L 353 or 353M, and Biochemistry 369
   iii. Physics: Physics 345, 338K, 355

i. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E


n. Three semester hours of Neuroscience 379H, Honors Tutorial Course; the research topic in 379H must relate to neuroscience and be approved in advance by the faculty advisor

o. Enough additional coursework to make a total of 120 semester hours

Additional Prescribed Work for Each Option

i. Neuroscience 330
j. Neuroscience 335
k. Neuroscience 340

n. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor

o. A section of Rhetoric and Writing 309S that is restricted to students in the Dean’s Scholars Honors Program

p. Two semesters of Neuroscience 379H

q. Fifteen additional semester hours of coursework approved by the departmental honors advisor

r. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts

s. Enough additional coursework to make a total of 120 semester hours
**Option III: Neuroscience**

d. Mathematics 408C, or 408N or 408R and 408S; and Statistics and Data Sciences 320E

e. An eight-hour physics sequence chosen from the following:
   
i. Physics 317K, 105M, 317L, and 105N
   
   ii. Physics 303K, 105M, 303L, and 105N
   
   iii. Physics 301, 101L, 316, and 116L

f. Chemistry 301 or 301C, 302 or 302C, and 204

g. Biology 311C, 311D, and 325 or 315H and 325H

h. Biology 206L
   
i. Neuroscience 330, 335, and 340


l. Enough additional coursework to make a total of 120 semester hours

**Special Requirements**

Students must fulfill both the University’s General Requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option II, students must remain in good standing in the Dean’s Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and must present their research in an approved public forum, such as the college’s annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at [https://cns.utexas.edu/innovative-education/undergraduate-research/undergraduate-research-forum](https://cns.utexas.edu/innovative-education/undergraduate-research/undergraduate-research-forum).