NEUROSCIENCES AND BEHAVIOR - CERTIFICATE

The neurosciences certificate program encourages undergraduate students interested in how the brain controls behavior to take courses in the basic sciences while providing the means to specialize in neuroscience.

Since this subdiscipline of the biological sciences spans a number of departments at the university (e.g., integrative physiology, psychology & neuroscience, and MCD biology), students are encouraged to obtain greater academic breadth through interdepartmental course selection.

For more information, visit the Undergraduate Certificate in Neuroscience (https://www.colorado.edu/neuroscience/undergraduate-education/) website.

Requirements

To obtain the certificate, a student must satisfy the requirements of a major other than the NRSC major and the requirements of the neuroscience certificate, and maintain a grade point average of 3.20 or better. All courses must be taken for a letter grade (no pass/fail).

Code	Title	Credit Hours
Required Courses		
General Chemistry sequence with lab (or equivalent sequence)		
CHEM 1113 & CHEM 1114	General Chemistry 1 and Laboratory in General Chemistry 1	5
CHEM 1133 & CHEM 1134	General Chemistry 2 and Laboratory in General Chemistry 2	5
Organic Chemistry sequence (or equivalent sequence)		
CHEM 3311 & CHEM 3321	Organic Chemistry 1 and Laboratory in Organic Chemistry 1	5
CHEM 3331 & CHEM 3341	Organic Chemistry 2 and Laboratory in Organic Chemistry 2	5
General Physics sequence with lab (or equivalent sequence)		
PHYS 2010 & PHYS 2020	General Physics 1 and General Physics 2	10
Biology with lab		*6*
Select one of the two options (or approved equivalent biology courses):		
MCDB 1150 & MCDB 1152	Introduction to Cellular and Molecular Biology and Problem Solving Co-Seminar for Introduction to Molecular and Cellular Biology	
or MCDB 1161	From Dirt to DNA: Phage Genomics Laboratory I	
or MCDB 1171	Antibiotics Discovery Through Hands-on Screens I	
or MCDB 1181	Biological Probiotic/Drug Discovery Through Hands-on Screens	
EBIO 1210 & EBIO 1230	General Biology 1 and General Biology Laboratory 1	
Either:		*3*
PSYC 2012	Biological Psychology [1]	
or NRSC 2125	Introduction to Neuroscience I: Foundations	
General Genetics		*3*
Select one of the following:		
EBIO 2070	Genetics: Molecules to Populations	
MCDB 2150	Principles of Genetics	
IPHY 4200	Physiological Genetics and Genomics	
Or an approved equivalent general genetics course		
Statistics		*3*
Select one of the following:		
PSYC 2111	Psychological Science I: Statistics	
IPHY 3280	Intro to Data Science and Biostatistics	
EBIO 1010	Introduction to Statistics and Quantitative Thinking for Biologists	
EBIO 4410	Biological Statistics	
MATH 2510	Introduction to Statistics	
Or an approved equivalent statistics course		
Electives		*6*
At least two additional upper - division Neuroscience/Behavior courses in IPHY, MCDB, PSYC and/or another department; one of these courses has to be outside of the home department. In the case of double majors, one advanced neuroscience course from each major department fulfills this requirement.		
Total Credit Hours		**51**

[1] Taking PSYC 2012 or NRSC 2125 alone does not meet the prerequisites for upper-division NRSC courses. Students must take NRSC 2150 in order to take upper-division NRSC courses.

For more information on this certificate and answers to frequently asked questions, see the Neuroscience Undergraduate Certificate (https://www.colorado.edu/neuroscience/undergraduate-education/) website or email Professor Serge Campeau (Serge.Campeau@Colorado.EDU), director of the program.