Rev. 06.20.18

Multidisciplinary Studies - Neuroscience Check Sheet BA and BS (min. 120 hrs required)

Note: No course can count for both General Education (GE) and major requirements.

* May be substituted with alternative BIOL, CHEM, or PHYS courses w/lab if they are not pertinent to student's future advanced degree program, field, or employment aspirations. Student needs to be aware of pre-requisites if alternative courses are taken.

** Requires a faculty mentor and an Independent Study form to be submitted by the mentor; contact Dr. Tran.

*** Requires a faculty mentor and an Independent Study form to be submitted by the mentor; may replace NEUR 2201; contact Dr. Tran.

ϕ Special permission required; registration will be handled by Dr. Tran.

ψ Blocked for Neuroscience majors and minors to take NEUR 3310 instead of PSYC 3310; special permission required; contact Dr. Tran.

Core Program Courses (29-30 SH)	Course Number	SH	Grade(s)
Principles of Biology and Laboratory II*	☐ BIOL 1200 ☐ BIOL 1201	3 , 1	,
General Chemistry and Laboratory II*	☐ CHEM 1160 ☐ CHEM 1161	3 , 1	,
Introductory Psychology or Honors Intro Psyc	☐ PSYC 1000 or ☐ PSYC 1060	3	
Psychological Statistics	☐ PSYC 2101	4	
Or Elementary Statistical Methods I	☐ Math 2228	3	
Or Introduction to Biostatistics	☐ BIOS 1500	3	
Research Methods in Psychology **(WI)**	PSYC 2210	4	
Introduction to Neuroscience	PSYC 3310ψ (cross-listed NEUR 3310)	3	
General Physics & Lab*	☐ PHYS 1250 ☐ PHYS 1251	3 , 1	,
General Physics & Lab*	☐ PHYS 1260 ☐ PHYS 1261	3 , 1	,
Or University Physics (two semesters)*	☐ PHYS 2350 ☐ PHYS 2360	4 , 4	,
Neuroscience Thesis I **(WI)**** **-This is equivalent to MULT 3500**	NEUR 4950	3	
Neuroscience Thesis II **(WI)**** **-This is equivalent to MULT 4999**	NEUR 4951	3	

Laboratory Research Courses (5-6 SH)

Neuroscience Research**	NEUR 2201 (may repeat; max. 12 SH)	2 or 3	

Senior Capstone (6 SH): Any two from the following (for Seniors in their final year only)

Cellular & Molecular Neuroscience ϕ	NEUR 4900	3	
Or Adv Top Sem: Neurobiology of Learning and Memory (WI) ϕ	PSYC 4250 **(must be Dr. Tran's section)**	3	
Behavioral & Integrative Neuroscience ϕ	NEUR 4901	3	

Structured Neuroscience Electives (BA 9 SH + 12 SH Foreign Lang; BS 21 SH + 0 SH Foreign Lang)

Survey of Human Physiology & Anatomy, Lab	☐ BIOL 2130 ☐ BIOL 2131	4 , 1	,
Or Human Physiology & Anatomy I, Lab	☐ BIOL 2140 ☐ BIOL 2141	3 , 1	,
Or Human Physiology & Anatomy, Lab	☐ BIOL 2150 ☐ BIOL 2151	3 , 1	,
Principles of Genetics	BIOL 2300	3	
Cellular Physiology	☐ BIOL 3310 ☐ BIOL 3311	4 , 0	,
Microbiology and Lab	☐ BIOL 3220 ☐ BIOL 3221	4 , 0	,
Cell and Developmental Biology	☐ BIOL 3260	3	
Principles of Animal Physiology	BIOL 3320	3	
Biological Evolution , Lab	☐ BIOL 3620 ☐ BIOL 3621	3 , 1	,
Transmission Electron Microscopy	☐ BIOL 5510 ☐ BIOL 5511	4 , 0	,
Scanning Electron Microscopy and X-Ray Analysis	☐ BIOL 5520 ☐ BIOL 5521	2 , 0	,
Principles of Biochemistry I (Co-req BIOL 4891)	☐ BIOL 4880 ☐ BIOL 4891 **(see UG cat)**	3 , 1	,
Principles of Biochemistry II (Co-req BIOL 4891)	☐ BIOL 4890 ☐ BIOL 4891 **(see UG cat)**	3 , 1	,
Histology and Lab	☐ BIOL 5450 ☐ BIOL 5451	4 , 0	,
Organic Chemistry I and Lab I	☐ CHEM 2750 ☐ CHEM 2753	3 , 1	,
Organic Chemistry II and Lab II	☐ CHEM 2760 ☐ CHEM 2763	3 , 1	,
Literature in Neurosciences**	NEUR 4200	1	
Introduction to Philosophical Issues in Biology	PHIL 1262	3	
Introduction to Philosophy of Science	PHIL 2261	3	
Philosophy of Mind	PHIL 3255	3	
Psychology of Learning	PSYC 3225	3	
Cognitive Psychology	PSYC 3226	3	
Learning Theories Applications	PSYC 3227	3	
Neuropsychology	PSYC 3311	3	
Sensation & Perception	PSYC 3312	3	
Abnormal Psychology	PSYC 3375	3	
Lab Methods in Behavioral Neuroscience***	PSYC 4312	3	
Neuroscience: Literature & Lab Experience***	PSYC 4315 **(may repeat 1 time)**	3	
Neuropsychopharmacology	PSYC 4340	3	

For internal use: T = transfer credit; **P =** placement credit; **(R) =** grade replacement

General Education 42 SH (must be designated as General Education "GE" in catalog)

English Courses (6 SH)	Course Number	SH	Grade(s)
Composition **(WI)**	ENGL 1100	**3**	
Composition **(WI)**	ENGL 2201 (in general cannot take in same calendar year as ENGL 1100 and for Neuroscience majors it must be a section in Arts and Humanities, Health Sciences, Multidisciplines, or Social Science)	**3**	
		Total SH	

Science Courses (8 SH) At least one lab course must accompany a lecture course.			
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			,
		Total SH	

Social Science Courses (9 SH) One course in three different academic disciplines			
		Total SH	

Mathematics (3 SH) One course at least equivalent to MATH 1050, 1065, 1066, 1067, or 2127, or PHIL 1500			
		Total SH	

Humanities & Fine Arts (9 SH) At least one course in Humanities (HU) and one course in Fine Arts (FA)			
		Total SH	

Health, Exercise and Sport Science (3 SH)			
Lifetime Physical Activity and Fitness Laboratory	KINE 1000	1	
Health in Modern Society	HLTH 1000	2	
		Total SH	

Free Electives (enough to total 120 SH)

		Total SH	

Foreign Language (12 SH) Not part of FC but is required for BA degree in Neuroscience. Must complete through 1004 in one lang.

		3	
		3	
		3	
		3	
		Total SH	

Certain honors and interdisciplinary courses (for example, CDFR, ETHN, HNRS, INTL, RUSI, and WOST) with the GE designation may be used to satisfy General Education requirements. For specific courses that meet the GE requirements, see your catalog.