# **Neuroscience**

Bachelor of Science (BS.NEUR)

<b>Core Require</b>	ements		Credits	Notes/Instructions
College Sem.	Quest for Meaning	CSEM 100	3	†A student may be required to take ENGL
Communication & Creative Expression	Writing Oral Communication Literature The Arts	ENGL 110† COMM 101 ENGL 140-149 ARTS 100-149	3 3 3 3	105 and/or MATH 100 based on placement exams administered prior to their first semester at King's College. ENGL 105 and
Citizenship	History Intercultural Global Connections	HIST 100-149 FREN/GERM/SPAN 100-level or Study Abroad <sup>††</sup> ECON 150-199; GEOG 150-199; HIST 150-199; PS 150-199; SOC 150-199	3 3 3	<ul> <li>MATH 100 are 3-credit courses and will count as free electives.</li> <li>††The Intercultural Competence</li> </ul>
Quantitative & Scientific Reasoning	SBM Quantitative Reasoning SBM Scientific Endeavor SBM Science in Context Human Beh. & Soc. Inst	MATH 120 <sup>†</sup> or higher level NSCI 100 NSCI 171-199 ECON 111, 112; GEOG 101, 102; PS 101, <b>PSYC 101</b> <sup>2</sup> , SOC 101	- - - -	requirement can be satisfied by taking a 100 level language class for 3 credits or participating i an approved Study Abroad experience. (See
Wisdom, Faith, & the Good Life	Introduction to Phil. Phil. Investigations Theology & Wisdom Theology & the Good Life	PHIL 101 PHIL 170-199 THEO 150-159 THEO 160-169	3 3 3 3	college catalog for more information)  SBM = Satisfied By Major requirement(s) and credit(s) listed below.
		Total Core Credits	36	

Major Requirements	Credits	Major Requirements	Credits	Electives <sup>3</sup> / Other Requirements	Credits
BIOL 113 <sup>2</sup>	3	CHEM 113 <sup>2</sup>	3	HCE 101 Holy Cross Exp.	1
BIOL 113L	1	CHEM 113L	1	Free Elective <sup>3</sup>	3
BIOL 210 <sup>PR</sup>	3	CHEM 114 <sup>PR</sup>	3	Free Elective <sup>3</sup>	3
BIOL 210LPR	1	CHEM 114LPR	1	Free Elective <sup>3</sup>	3
BIOL 213 <sup>PR</sup>	3	CHEM 241 <sup>PR</sup>	3	Free Elective <sup>3</sup>	3
BIOL 213LPR	1	CHEM 241LPR	1	Free Elective <sup>3</sup>	3
MATH 121 <sup>2</sup> , 123 <sup>2</sup> , or 125 <sup>2</sup>	3-4	CHEM 242 <sup>PR</sup>	3	Free Elective <sup>3,4</sup>	1-2
PSYC 101 <sup>2</sup>	3	CHEM 242LPR	1		
PSYC 220	4	Neuroscience Elective*	3		
NEUR 211	3	Neuroscience Elective*	3		
NEUR 212PR	3	Neuroscience Elective*	3		
NEUR 310 <sup>PR</sup>	3	Science Elective*	3-4		
NEUR 480 <sup>PR</sup>	3	Science Elective*	4		
Total Major Credits	34-35	<b>Total Major Credits</b>	32-33	Total Elective / Other Credits	16-18

### **Total Credits Required for Graduation = 120**

\*In addition to the major sequence requirements, a Neuroscience Major must also complete three neuroscience elective courses and two science elective courses from the following list. At least one (1) of these courses must include a laboratory component. (Some courses will require the laboratory component, as determined by the instructor):

		Science Electives			
Science Electives			Neuroscience Electives		
BIOL 221 & 221L	BIOL 326 & 326L	PHYS 111 & 111L**	NEUR 341	NEUR349 & 349L	
BIOL 222 & 222L	BIOL 336 & 336L	PHYS 112 & 112L**	NEUR 342	NEUR 390	
BIOL 314 & 314L	BIOL 380		NEUR 345	NEUR 391	
BIOL 323 & 323L	BIOL 447 & 447L		NEUR 346	BIOL 380	
BIOL 353	BIOL 450 & 450L		NEUR 348	BIOL 456	
BIOL 314 & 314L BIOL 323 & 323L	BIOL 380 BIOL 447 & 447L	PHTS 112 & 112L	NEUR 345 NEUR 346	NEUR 391 BIOL 380	

<sup>\*\*</sup> In preparation for graduate or professional school, Pre-Health students should complete the two-semester sequence in Physics (PHYS 111, PHYS 111L, PHYS 112L, and PHYS 112L) and Calculus (MATH 125).

#### **General Information:**

A student must earn a minimum of 120 credit hours to be awarded the baccalaureate degree. The number of credit hours required for graduation may be higher in certain major programs <u>or</u> if the student elects to pursue a second major. Beyond the requirements of the Core Curriculum and of a student's chosen major program, the balances of the credit hours required for graduation are "free electives."

## **Neuroscience**

## Suggested Sequence

A suggested course sequence of degree requirements is listed below. Refer to the college catalog for course titles, descriptions, and prerequisites. Always consult your Academic Advisor when planning and scheduling your classes.

Fall	Credits	Spring	Credits		
BIOL 113 <sup>2</sup> Evolution & Diversity	3	BIOL 210 <sup>PR</sup> Organisms & Their Ecosystems	3		
BIOL 113L Evolution & Diversity Lab	1	BIOL 210L Organisms & Their Ecosystems Lab	1		
CHEM 113 <sup>2</sup> General Chemistry I	3	CHEM 114 <sup>PR</sup> General Chemistry II	3		
CHEM 113L General Chemistry I Lab	1	CHEM 114L General Chemistry II Lab	1		
Core Course <sup>1</sup>	3	MATH 121 <sup>2</sup> , 123 <sup>2</sup> or 125 <sup>2</sup>	3-4		
Core Course <sup>1</sup>	3	PSYC 101 <sup>PR</sup> Introduction to Psychology	3		
HCE 101 Holy Cross Experience	1				
	15		14-15		
Summer	Credits				
Fall	Credits	Spring	Credits		
NEUR 211 Neuroscience I	3	NEUR 212 <sup>PR</sup> Neuroscience II	3		
CHEM 241 <sup>PR</sup> Organic Chemistry I	3	CHEM 242 <sup>PR</sup> Organic Chemistry II	3		
CHEM 241L Organic Chemistry I Lab	1	CHEM 242L Organic Chemistry II Lab	1		
BIOL 213 <sup>PR</sup> Cell & Molecular Biology	3	Science Elective*	3-4		
BIOL 213L Cell & Molecular Biology Lab	1	Core Course <sup>1</sup>	3		
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3		
	14**		16-17**		
Summer	Credits				
Fall	Credits	Spring	Credits		
Neuroscience Elective*	3	Neuroscience Elective*	3		
PSYC 220 Psychological Statistics	3	Core Course <sup>1</sup>	3		
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3		
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3		
Free Elective <sup>3</sup>	3	Free Elective <sup>3</sup>	3		
	15		15		
Summer	Credits				
Fall	Credits	Spring	Credits		
NEUR 310 <sup>PR</sup> Research Methods in Neuroscience	3	NEUR 480 <sup>PR</sup> Senior Seminar	3		
Science Elective*	3-4	Free Elective <sup>3</sup>	3		
Core Course <sup>1</sup>	3	Free Elective <sup>3</sup>	3		
Core Course <sup>1</sup>	3	Neuroscience Elective*	3		
Free Elective <sup>3</sup>	3	Free Elective <sup>3</sup>	1-2		
	15-16		13-14		
Total Credits Required for Graduation = 120					

#### NOTES:

<sup>\*\*</sup>The standard semester course load is five courses consisting of 15 – 17 credits. A student may take 18 credits if the science lab puts them over 17 credits (for more information about credit loads, please see the college catalog).

 $<sup>{}^{1}\!\</sup>text{Choose}$  one course from each of the Core Requirements listed on the reverse side.

<sup>&</sup>lt;sup>2</sup> Course may satisfy both a Major and a Core requirement. BIOL 113 and CHEM 113 satisfy the Scientific Endeavor and Science in Context Core requirement. MATH 121, 123, or 125 will satisfy the Quantitative Reasoning Core requirement, and PSYC 101 will satisfy the Human Behavior & Social Institutions Core requirement.

<sup>&</sup>lt;sup>3</sup> Students may select "free electives" for personal enrichment <u>OR</u> for Minor and/or Second Major Requirements.

PR Course has a prerequisite – check college catalog.