

# NEUROSCIENCE B.S. WORKSHEET

General Requirements (47-64 hrs)			
COURSE	SEMESTER COMPLETED	COURSE	SEMESTER COMPLETED
ENGL 101 <sup>a</sup>	_____	Social Science (3 hrs) <sup>c</sup> <i>SOCY 101 recommended for Pre-Med</i>	_____
ENGL 102 <sup>a</sup>	_____	_____	_____
BIOL 101 + 101L	_____	Fine Arts or Humanities (3 hrs) <sup>c</sup> <i>CLAS 230 recommended for Pre-Med</i>	_____
BIOL 102 + 102L	_____	_____	_____
PSYC 101	_____	AIU <sup>d</sup> (any CC-AIU course)	_____
MATH 122 or 141	_____	_____	_____
MATH 142 or 170 or 172	_____	CMS <sup>d</sup> (any overlay or standalone CC-CMS course)	_____
STAT 205 or 515 <i>Students intending to take any other 500-level STAT courses should take STAT 515</i>	_____	_____	_____
CSCE 102 or higher or PHIL 111, 114, or 115	_____	INF <sup>d</sup> (any overlay or standalone CC-INF course)	_____
_____	_____	_____	_____
US HISTORY ( <i>HIST 111<sup>b</sup>, 112, 214 or other GHS-approved course</i> )	_____	VSR <sup>d</sup> (any overlay or standalone CC-VSR course) <i>PHIL 321 recommended for Pre-Med</i>	_____
_____	_____	Foreign Language (to 122-level; 0-9 hrs)	_____
NON-US HISTORY ( <i>HIST 101, 102, 104, 105, 106, 108, 109, GERM 280, FAMS 300, or other GHS-approved course</i> )	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

<sup>a</sup> Must be passed with a grade of C or higher and be completed within first 60 credit hours

<sup>b</sup> Counts towards founding documents requirement; other courses that can be used to fulfil the requirement can be found here: <https://academicbulletins.sc.edu/undergraduate/founding-document-courses/>

<sup>c</sup> Courses that can be used to fulfil the College of Arts and Sciences Social Science and Fine Arts or Humanities requirements can be found here: <https://academicbulletins.sc.edu/undergraduate/arts-sciences/courses-acceptable-social-science-fine-arts-humanities/>

<sup>d</sup> Courses that can be used to fulfil CC requirements (AIU, CMS, INF, and VSR) and their Overlay eligibility can be viewed at: <https://academicbulletins.sc.edu/undergraduate/carolina-core-courses/>

A maximum of 2 Overlay courses (counts toward two CC requirements) are allowed, the remainder must be Stand-Alone courses (counts toward one CC requirement). The total CC credit hours must add up to a minimum of 31 hours.

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## Supporting Courses (19 hrs)

Supporting courses are prerequisites for Major Requirements.

All Supporting Courses must be passed with a grade of C or higher.

A Minor or Cognate is **NOT** required for this degree program. However, eight hours of supporting coursework may also be used to fulfill the requirements for a Minor, Cognate or second Major if a student chooses to undertake one.

COURSE	SEMESTER COMPLETED	COURSE	SEMESTER COMPLETED
PSYC 405	_____	CHEM 112	_____
BIOL 302	_____	CHEM 112L	_____
BIOL 302L	_____	CHEM 333	_____
CHEM 111	_____	CHEM 331L	_____
CHEM 111L	_____		

## Major Required Courses (12 hrs)

All Major Required Courses must be passed with a grade of C or higher.

COURSE	SEMESTER COMPLETED	COURSE	SEMESTER COMPLETED
NSCI 300 / PSYC 455	_____	PSYC 507	_____
BIOL 405	_____	Neuroscience Research (3 hrs) <sup>e</sup>	_____

## General Electives (0-18 hrs)

Additional courses needed to meet the 120 credit hour minimum requirement for the B.S.

No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the College of Arts and Sciences. The College of Arts and Sciences allows the use of the Pass-Fail option on elective courses. Further clarification on inapplicable courses can be obtained from the College of Arts and Sciences.

CHEM 334/332L, PHYS 201, and PHYS 202 are recommended electives for Pre-Med.

COURSE	SEMESTER COMPLETED	COURSE	SEMESTER COMPLETED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

<sup>e</sup> Training in the methods of scientific inquiry and the dissemination of research in neuroscience. Can be fulfilled with independent research undertaken with a faculty mentor or lab-based coursework. Must be approved by the Neuroscience program director.

- Independent research can be done under any major independent research code as long as the research is in the field of neuroscience and is approved by the Neuroscience Program Director. Examples include NSCI 498, BIOL 399, PSYC 498, PSYC 598, PSYC 599, SCHC 399, and BMEN 499.
- NSCI 570 – Neuroscience Laboratory can be used to fulfil the research requirement
- Other lab-based courses may be approved by the Neuroscience Program Director if they have a significant neuroscience component.

# Cognitive and Behavioral Neuroscience Concentration

All Major Courses must be passed with a grade of C or higher

## Concentration Core

Students must take a minimum of 3 hours from list A and 3 hours from list B, with additional courses selected from either list to meet the minimum of 12 hours:

### List A (minimum 3 hours)

- BIOL 460 (3 hrs) – General Physiology
- BIOL 534 (3 hrs) – Animal Behavior
- BIOL 543 (3 hrs) Comparative Physiology
- COMD 501 (3 hrs) – Anatomy and Physiology of Speech and Hearing Mechanisms
- EXSC 351 (3 hrs) – Acquisition of Motor Skills

### List B (minimum 3 hours)

- PSYC 400 (3 hrs) – Survey of Learning and Memory
- PSYC 450 (3 hrs) – Sensation and Perception
- PSYC 503 (3 hrs) – Psychology of Drug Use and Effects
- PSYC 550 (3 hrs) – Advanced Sensation and Perception
- PSYC 571 (3 hrs) – Cognitive Neuroscience Laboratory
- PSYC 572 (3 hrs) – Cognitive Psychology Laboratory

CONCENTRATION CORE (12 hrs)	
COURSE	SEMESTER COMPLETED
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

<sup>f</sup> Students intending to take BIOL 541 as part of their major requirements should also take CHEM 334/332L as part of their program requirements, either as an elective or as part of a cognate/minor

<sup>g</sup> Students who complete Individual Research to complete the Required Neuroscience Research requirement may take NSCI 570 as an elective

<sup>h</sup> Students may complete additional credits of Individual Research as a Major elective, up to a degree maximum of 6 hours. Students admitted to the BS with Distinction in Neuroscience may apply an additional 3 hours of independent research toward their major requirements, up to a maximum of 9 hours.

## Major Electives

Students must complete a minimum of 12 hours of elective coursework. Students may take courses from the Major Electives listed below and/or additional courses from the Concentration Core that were not counted toward their core coursework to fulfill their 12 hours of electives.

- BIOL 303 (3 hrs) – Fundamental Genetics
  - BIOL 461 (3 hrs) – Advanced Human Anatomy
  - BIOL 505 (3 hrs) – Developmental Biology
  - BIOL 530 (4 hrs) – Histology
  - BIOL 541 (3 hrs) – Biochemistry<sup>f</sup>
  - BIOL 541L (1 hr) – Biochemistry Laboratory<sup>f</sup>
  - BIOL 553 (3 hrs) – Genomics
  - BIOL 612 (3 hrs) – Virology
  - BIOL 614 (3 hrs) – Stem Cell Biology
  - BIOL 620 (3 hrs) – Immunobiology
  - BIOL 634 (3 hrs) – Biology of Neurological Diseases
  - BIOL 635 (4 hrs) – Neurophysiology
  - BIOL 665 (3 hrs) – Human Molecular Genetics
  - BIOL 667 (3 hrs) – Molecular and Genetic Mechanisms of Disease
  - BMEN 321 (3 hrs) – Biomonitoring and Electrophysiology
  - BIOL 461 (3 hrs) – Advanced Human Anatomy
  - BIOL 505 (3 hrs) – Developmental Biology
  - EXSC 303 (3 hrs) – Perceptual-Motor Development
  - NSCI 560 (3 hrs) – Advanced Topics in Neuroscience
  - NSCI 570 (3 hrs) – Neuroscience Laboratory<sup>g</sup>
  - PHIL 351 (3 hrs) – Mind and Nature
  - Individual Research<sup>h</sup> (1-6 hrs)
- Approved special topics courses and internships*

Major Electives (12 hrs)	
COURSE	SEMESTER COMPLETED
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____