

# NEUROBIOLOGY

## BACHELOR OF SCIENCE

**At least 124 hrs.** (of which 45 must be Jr/Sr hrs.—courses numbered 300 or above) **must be completed for graduation.**

**Completing the minimum requirements** listed on this sheet will result in **113 overall hrs.** and **49 Jr/Sr hrs.**

Double majors must complete at least 15 hrs. unique to the major.

### I. General College Requirements (33 hrs):

**English** (9 hrs): ENGL 101 \_\_\_; ENGL 102 (or 105) \_\_\_; ENGL 203 (or 205, 209, 210, 211) \_\_\_

**Argument & Reason** (3 hrs., one of the following): \_\_\_  
COMS 130, 230, PHIL 148, 310

**Western Civilization** (6 hrs): HWC 204 (or 114) \_\_\_; HWC 205 (or 115) \_\_\_

**Principal Course and/or Foreign Language Requirements**  
(No more than one course from each topical subgroup from the principal course list can be applied toward fulfillment of this requirement. See:

[http://www2.ku.edu/~clasus/pnwc/principal\\_courses.shtml](http://www2.ku.edu/~clasus/pnwc/principal_courses.shtml)):

**Social Science (3 hrs)** \_\_\_; **Humanities (3 hrs)** \_\_\_; and three additional courses in foreign language, social sciences, or humanities: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

*Note: Students are encouraged to consider Neuroscience-related courses in Psychology, Speech Language and Hearing, and Applied Behavior Sciences for their distribution requirements.*

### II. General Science Requirements (31-32 hrs):

- \_\_\_\_\_ CHEM 184 Foundations of Chemistry I (5 hrs)
- \_\_\_\_\_ CHEM 188 Foundations of Chemistry II (5 hrs)
- \_\_\_\_\_ CHEM 624 Organic Chemistry I (3 hrs)
- \_\_\_\_\_ CHEM 625 Organic Chemistry I lab (2 hrs)
- \_\_\_\_\_ CHEM 626 Organic Chemistry II (3 hrs)
- \_\_\_\_\_ MATH 121 Calculus I (5 hrs) **OR** MATH 115 and MATH 116 Calculus I & II (6 hrs)
- \_\_\_\_\_ PHSX 114, PHSX 115 Coll. Physics I/II (8 hrs) **OR**
- \_\_\_\_\_ PHSX 211 and PHSX 212 Gen. Physics I & II (8 hrs)

### III. General Biology Requirements (21-23 hrs):

- \_\_\_\_\_ BIOL 150 (or 151, Honors) Principles of Molecular & Cellular Biology (4 hrs)
- \_\_\_\_\_ BIOL 152 (or 153, Honors) Principles of Organismal Biology (4 hrs)
- \_\_\_\_\_ BIOL 350 Introduction to Genetics (3 hrs)
- \_\_\_\_\_ BIOL 412 Evolutionary Biology (3 hrs)

- \_\_\_\_\_ BIOL 413 Diversity of Organisms **OR**
- \_\_\_\_\_ BIOL 414 Principles of Ecology (3 hrs)
- \_\_\_\_\_ BIOL 600 Introductory Biochemistry (4 hrs) **OR**
- \_\_\_\_\_ BIOL 636 Biochemistry I and BIOL 638 Biochemistry II (6 hrs)

### IV. Neurobiology Requirements (19 hrs):

- \_\_\_\_\_ BIOL 416 Cell Structure and Function (3 hrs)
- \_\_\_\_\_ BIOL 417 Biology of Development (3 hrs)
- \_\_\_\_\_ BIOL 426 Cell Biology lab (3 hrs)
- \_\_\_\_\_ BIOL 435 Intro. to Neurobiology (3 hrs)
- \_\_\_\_\_ BIOL 650 Advanced Neurobiology (3 hrs)
- \_\_\_\_\_ BIOL 676 Mammalian Neuroanatomy (3 hrs)
- \_\_\_\_\_ BIOL 599 Senior Seminar in Neurobiology (1 hr)  
(must be taken in senior year)

### V. Neurobiology Electives (9 hrs):

- \_\_\_\_\_ **Select at least two courses from the following list:**
- \_\_\_\_\_ BIOL 454 Brain Diseases and Neurological Disorders
- \_\_\_\_\_ BIOL 570 Introduction to Biostatistics
- \_\_\_\_\_ BIOL 646 Mammalian Physiology (lab 647)
- \_\_\_\_\_ BIOL 652 Animal Behavior
- \_\_\_\_\_ BIOL 672 Gene Expression
- \_\_\_\_\_ BIOL 673 Cellular and Molecular Neurobiology
- \_\_\_\_\_ BIOL 755 Control Mechanisms of Development
- \_\_\_\_\_ BIOL 775 Chemistry of the Nervous System
- \_\_\_\_\_ BIOL 777 Integrative and Developmental Neurobiology

\_\_\_\_\_, \_\_\_\_\_ **Additional electives can be chosen from any BIOL courses at the 400-level or above.** No more than 3 hrs. of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement.