NEUROSCIENCE PROGRAM MINOR REQUIREMENTS

➤ **Course Requirements for Minor:** To complete the Neuroscience Minor, the student must complete a minimum of 18 credit hours as follows:

Area 1) Introduction to Neuroscience
Area 2) Cognitive and Behavioral - One Course
Area 3) Cellular and Molecular - One Course
Area 4) Clinical and Medical - One Course
Area 5) Electives - Complete 6 credits
Area 6) Lab Requirement
Area 7) Graduation Sign Off

➤ Due to prerequisites for some courses, completion of the Neuroscience Minor may require 23 credit hours for some students. With approval of the Neuroscience Program Director and the applicable Department Chair, students may apply credits from Area 3 toward both their minor and major to offset the number of prerequisites necessary for courses in these areas. Only one course total may be applied to the minor and major, and only after the appropriate approvals have been received.

➤ **Grade Requirements:**
A grade of "C" or better in courses used toward the Minor ("C-" is not acceptable)

➤ **Credit Hour Requirements:**
Minimum of 18 credit hours as described below.

➤ **Recommendations for Minors:** The Neuroscience program recommends that you contact the Neuroscience Program Director for help in selecting courses to compliment your major. We also suggest that if you are interested in the Neuroscience Program, but you have not had much experience with the biological sciences, then you may want to take Psych 2730 (Biological Psychology) as your first course for the Neuroscience Minor. Finally, the Neuroscience Program recommends that you complete Math 1050 for your Quantitative Literacy Requirement, although it is not required. This will also allow you to fulfill a prerequisite for Genetics.
NEUROSCIENCE MINOR COURSE LIST:

Area 1:

Foundation Course:

- NEUR 2050 Introduction to Neuroscience (3)

Area 2:

Cognitive and Behavioral Area: (Complete 1 of the below courses)

- NEUR 3750 Cognitive and Behavioral Neuroscience (3)
  (Prereq: PSY 2730 or NEUR 2050, or approval of instructor)
- PSY 2730 Biopsychology (3)
  (Prereq: PSY SS1010 or NEUR 2050)
- PSY 3730 Perception (3)
  (Prereq: PSY SS1010 or NEUR 2050)

Area 3:

Cellular and Molecular Area: (Complete 1 of the below courses)

- NEUR 3950 Cell & Molecular Neuroscience (3)
  (Prereq: NEUR 2050)
- ZOOL 3200 Cell Biology (4)
  (Prereq: ZOOL SI1110 and either CHEM 1110 and CHEM 1120 Series or CHEM 1210 and CHEM 1220 Series, or approval of instructor)
- ZOOL 3300 Genetics (4)
  (Prereq: ZOOL SI1110 and MATH 1050 or equivalent, or approval of instructor)
- ZOOL 4100 Vertebrate Embryology (4)
  (Prereq: ZOOL SI1110 and ZOOL SI1120, or approval of instructor)
- CHEM 3070 Biochemistry I (3) and CHEM 3075 Biochemistry I Lab (1)
  (Prereq: CHEM 2310 and CHEM 2315)

Area 4:

Clinical and Medical Area: (Complete 1 of the below courses)

- NEUR 3850 Clinical Neuroscience (3)
  (Prereq: PSY 2730 or NEUR 2050, or approval of instructor)
- PSY 3740 Neuropharmacology (3)
  (Prereq: NEUR 2050 or PSY 2730)
- HTHS 2240/3240 Introduction to Pharmacology (3)
  (Prereq - Recommended: HTHS 1101, HTHS 1110, HTHS 1111. Cannot take HTHS 3240 for credit)
- ZOOL LS1020 Human Biology (3)
- ZOOL 2200 Human Physiology (4)
Area 5:

**Electives:** (6 credits minimum from the electives listed below)

- ANTH LS/DV1020 Biological Anthropology (3)
- ANTH HU/DV1040 Language and Culture (3)
- BTNY 2303 Ethnobotany (3)
- BTNY 2600 Laboratory Safety (1)
- CEET 1110 Basic Electronics (2)
- CEET 1120 Information Technology (2)
- CEET 4040 Digital Signal Processing (4)
- CHEM PS/SI1050 Intro to General Organic & Biochemistry (5)
- CHEM SI1120 Elementary Organic Bio-Chemistry (5)
- CHEM 2310 Organic Chemistry I (5)
- CHEM 2320 Organic Chemistry II (5)
- CHEM 2600 Laboratory Safety (1)
- CHEM 3070 Biochemistry I (4)
- CHEM 3080 Biochemistry II (3)
- CHEM 3090 Biochemical Techniques (1)
- CHEM 4250 Medicinal Chemistry (3)
- CS 4500 Artificial Intelligence and Neural Networks (4)
- HLTTh 3100 Applications of Technology in Health Promotion (3)
- HLTTh SI4013 Health Promotion Research and Assessment (3)
- HLTTh 3160 Health Behavior and Special Populations (3)
- HTHS 1101 Medical Terminology (2)
- HTHS 1110/1111 Biomedical Core Lecture/Lab (8)
- HTHS 2230 Introductory Pathophysiology/Lab (4)
- HTHS 2240/3240 Introduction to Pharmacology (3)
- MICR 3254 Immunology (4)
- MICR 3305 Medical Microbiology (5)
- MICR 4154 Microbial Genetics (4)
- MICR 4252 Cell Culture (2) *(cross-listed with Botany)*
- MICR 4554 Virology (4)
- MLS 1113 Intro to Medical Laboratory Practices (4)
- MLS 4803 Research Projects in Medical Laboratory Sciences I (2)
- MLS 4804 Research Projects in Medical Laboratory Sciences II (2)
- NEUR 4800 Projects and Research (1-3)
- NEUR 4830 Directed Readings (1-3)
- NEUR 4900 Topics in Neuroscience (2-3)
- PHIL 3350 Medical ethics (3)
- PHYS 3190 Applied Optics (3)
- PHYS 3410 Electronics for Scientists.
- PHYS 3420 Data Acquisition and Analysis (3)
- PSY 2730 Biopsychology (3)
- PSY 2830 Psychology of Consciousness (3)
- PSY 3600 Psychology Statistics (3)
- PSY 3730 Perception (3)
- PSY 3740 Neuropharmacology (3)
- PSY 4800 Projects and Research (1-3)*†
- PSY 4830 Directed Readings (1-3)†
- PSY 4900 Selected Topics in Psychology (3)†
- PSY 4910 Capstone Research Project (3, 3)†
- ZOOL LS1020 Human Biology (3)
- ZOOL 2100 Human Anatomy (4)
- ZOOL 2200 Human Physiology (4)
- ZOOL 3200 Cell Biology (4)
- ZOOL 3300 Genetics (4)
- ZOOL 4050 Comparative Vertebrate Anatomy (4)
- ZOOL 4060 Comparative Physiology (4)
- ZOOL 4100 Vertebrate Embryology (4)
- ZOOL 4120 Histology (4)
- ZOOL 4220 Endocrinology (4)
- ZOOL 4300 Molecular Genetics (4)
- ZOOL 4350 Animal Behavior (4)
- ZOOL 4800 Problems in Zoology (1-4) **†
- ZOOL 4830 Readings in Zoology (1-4) **†
- ZOOL 4900 Topics in Zoology (1-4) **†
- ZOOL 4920 Short Courses, Workshops, Institutes, and Special Programs (1-4)

*Prerequisites: PSY SS1010, PSY SI3600 (Statistics), and PSY SI3610 (Research Methods) or equivalent, and faculty mentor permission.

**Prerequisites: ZOOL SI1110 and SI1120, and approval of instructor.

† These courses must have a significant neuroscience focus in order to qualify as an elective towards the neuroscience minor; approval by the Neuroscience Program Director is required in advance.

**Note:** Consult the WSU course catalog for prerequisites to the elective courses listed above.

Area 6:

**Lab Requirement**

Students must complete at least one science lab course (in any subject) to complete the neuroscience minor. This can be included as part of a course (for example, CHEM 2310), or as a separate class (for example, CHEM 3075 or NEURO Lab).

Area 7:

**Graduation Sign Off**

Students must meet with the program director.

2/2019