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**MEMORANDUM**

**TO:** Jerry Haky, Chair  
 Undergraduate Programs Committee

**FROM:** David L. Wolgin, Chair *David L. Wolgin*  
 Department of Psychology

**RE:** Proposal to Change the Requirements for the B.S. in Neuroscience and Behavior

The Department of Psychology and the Department of Biological Science offer a joint B.S. degree program in Neuroscience and Behavior. Currently, students in this program are required to take 58 credits of core courses and 12 credits of elective courses. Elective courses are organized under three tracks (Behavioral Neuroscience, Cellular/Molecular Neuroscience, Ethology/Comparative Psychology) and students must choose their electives from one of these tracks. Unfortunately, due to faculty attrition, it has proven difficult to offer sufficient electives in each track to satisfy student demand, with the result that students have difficulty completing the program in a timely fashion. Accordingly, we propose to change the requirements so that students may select elective courses from any of the three tracks. All other program requirements will remain unchanged. The proposed change has been reviewed and approved by the Dean of the CES College of Science.

|  |              |
|--|--------------|
| <b>Approved by:</b>                                | <b>Date:</b> |
| Department Chair (Psych.): <i>David L. Wolgin</i>  | 6/16/14      |
| Department Chair (Bio. Sci.): <i>R.K. King</i>     | 6-18-14      |
| College Curriculum Chair: <i>J. E. King</i>        | 9/2/14       |
| College Dean: <i>J. E. King</i>                    | 9/3/14       |
| UUPC Chair: <i>J. E. King</i>                      | 9/5/14       |
| Undergraduate Studies Dean: <i>Elizabeth Platt</i> | 9/9/14       |
| UFS President: _____                               | _____        |
| Provost: _____                                     | _____        |

## **Bachelor of Science with Major in Neuroscience and Behavior (Minimum of 120 credits required)**

The Neuroscience and Behavior major provides undergraduate preparation for students interested in pursuing graduate degrees in psychobiology, neuroscience and/or behavioral biology, or in pursuing professional degrees in medicine or veterinary medicine. ~~The student elects a concentration in either Ethology/Comparative Psychology, Behavioral Neuroscience or Cellular-Molecular Neuroscience.~~ Qualified students are strongly encouraged to become involved in neuroscience and behavior research projects (normally via a Directed Independent Study or special research course). An optional Honors Thesis, PSY 4970 in this degree program is available to those students who meet the academic requirements.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the Transfer Student Manual (see [www.fau.edu/registrar/tsm.php](http://www.fau.edu/registrar/tsm.php)).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

In addition to the University and College requirements, students are expected to complete all of the following courses. A minimum of 24 of the upper-division credits in the B.S. Neuroscience and Behavior program must be taken at Florida Atlantic University.

### **Core Requirements**

|                             |  |   |
|-----------------------------|--|---|
| Biochemistry 1              | BCH 3033                                 | 3 |
| Biological Principles       | BSC 1010                                 | 3 |
| Biological Principles Lab   | BSC 1010L                                | 1 |
| Biodiversity                | BSC 1011                                 | 3 |
| Biodiversity Lab            | BSC 1011L                                | 1 |
| Comparative Animal Behavior | CBH 4024                                 | 3 |
| General Chemistry 1         | CHM 2045                                 | 3 |
| General Chemistry 1 Lab     | CHM 2045L                                | 1 |
| General Chemistry 2         | CHM 2046                                 | 3 |
| General Chemistry 2 Lab     | CHM 2046L                                | 1 |
| Organic Chemistry 1         | CHM 2210                                 | 3 |
| Organic Chemistry 2         | CHM 2211                                 | 3 |
| Organic Chemistry 2 Lab     | CHM 2211L                                | 2 |
| Math through Calculus       | MAC 2233, 2281, 2282, 2311, 2312 or 2313 | 3 |

|   |   |   |
|---|---|---|
| Genetics  | PCB 3063  | 4 |
| General Physics 1 and 2* or<br>College Physics 1 and 2* | PHY 2048 and PHY 2049 or<br>PHY 2053 and PHY 2054 | 8 |
| Biological Bases of Behavior 1                          | PSB 3002  | 3 |
| General Psychology                                      | PSY 1012  | 3 |
| Research Methods in Psychology                          | PSY 3213  | 3 |
| Experimental Design and Statistical Inference           | PSY 3234  | 3 |
| Intermediate Statistics Lab                             | STA 3163L   | 1 |

\* This degree program does not require that students take Physics lab courses. However, students considering medical school should take the lab sequences. The Physics Department may require labs as corequisites for lecture courses.

### **Elective Requirements**

Students are expected to complete a minimum of 12 credits of elective courses. Students are free to choose their elective courses from those listed below. Special topics laboratory courses with the words "Research in [neuroscience-related topic]" or "Laboratory in [neuroscience-related topic]" can be substituted for one elective course, with permission of the program coordinator.

### **Behavioral Neuroscience**

|                                      |           |   |
|--------------------------------------|-----------|---|
| Auditory Perception                  | EXP 4120  | 3 |
| Human Perception                     | EXP 4204  | 3 |
| Comparative Animal Physiology        | PCB 4723  | 3 |
| Comparative Animal Physiology Lab    | PCB 4723L | 1 |
| Computer Laboratory in Psychobiology | PSB 3002L | 3 |
| Laboratory in Psychobiology          | PSB 4004L | 3 |
| Biological Bases of Behavior II      | PSB 4006  | 3 |
| Neuropsychology                      | PSB 4240  | 3 |
| Human Psychophysiology               | PSB 4323  | 3 |
| Psychopharmacology                   | PSB 4444  | 3 |
| Developmental Psychobiology          | PSB 4504  | 3 |
| Neurobiology of Learning and Memory  | PSB 4810  | 3 |
| Biopsychology of Language            | PSB 4833  | 3 |
| Developmental Neurobiology           | PSB 6515  | 3 |

### **Cellular Molecular Neuroscience**

|                                     |           |   |
|-------------------------------------|-----------|---|
| Cellular Neuroscience and Disease   | PCB 4842  | 3 |
| Practical Cell Neuroscience         | PCB 4843C | 3 |
| Human Morphology and Function 1     | PCB 3703  | 3 |
| Human Morphology and Function 1 Lab | PCB 3703L | 1 |
| Human Morphology and Function 2     | PCB 3704  | 3 |
| Human Morphology and Function 2 Lab | PCB 3704L | 1 |
| Molecular and Cell Biology          | PCB 4023  | 3 |
| Comparative Animal Physiology       | PCB 4723  | 3 |
| Comparative Animal Physiology Lab   | PCB 4723L | 1 |
| Neurobiology of Learning and Memory | PSB 4810  | 3 |

**Ethology/Comparative Psychology**

|  |           |   |
|--|-----------|---|
| Psychology of Motivation                 | EXP 4304  | 3 |
| Marine Biology                           | OCB 4043  | 2 |
| Marine Biology Field Studies and Lab     | OCB 4043L | 2 |
| Principles of Ecology                    | PCB 4043  | 3 |
| Evolution                                | PCB 4674  | 3 |
| Comparative Animal Physiology            | PCB 4723  | 3 |
| Comparative Animal Physiology Lab        | PCB 4723L | 1 |
| Computer Laboratory in Psychobiology     | PSB 3002L | 3 |
| Laboratory in Psychobiology              | PSB 4004L | 3 |
| Developmental Psychobiology              | PSB 4504  | 3 |
| Invertebrate Zoology                     | ZOO 2203  | 3 |
| Invertebrate Zoology Lab                 | ZOO 2203L | 2 |
| Functional Biology of Marine Animals     | ZOO 4402  | 3 |
| Functional Biology of Marine Animals Lab | ZOO 4402L | 1 |
| Ornithology                              | ZOO 4472  | 2 |
| Ornithology Lab                          | ZOO 4472L | 2 |
| Comparative Vertebrate Morphogenesis     | ZOO 4690  | 3 |
| Comparative Vertebrate Morphogenesis Lab | ZOO 4690L | 2 |