Behavioral Biology Major Requirements

(Also see Requirements for a Bachelor’s Degree. ([http://e-catalog.jhu.edu/arts-sciences/full-time-residential-programs/undergraduate-policies/academic-policies/requirements-for-a-bachelors-degree/]]

The core program of the behavioral biology major provides background and breadth in:

1. The life sciences (e.g., biology and neuroscience)
2. The natural sciences (e.g., chemistry and physics) and mathematics (e.g., calculus and statistics)
3. The social and behavioral sciences (e.g. psychology and anthropology)

The exact courses to be taken are determined by the student in conjunction with the faculty advisor. A grade of C- or better is required for courses fulfilling major requirements and courses may not be taken with the faculty advisor. A grade of C- or better is required for courses fulfilling major requirements.

Requirements for the behavioral biology major are as follows:

### Code Title Credits

#### Mathematics, Chemistry, and Physics Courses

- AS.110.106 Calculus I (Biology and Social Sciences) 4
- or AS.110.108 Calculus I (Physical Sciences & Engineering) 4
- AS.110.107 Calculus II (For Biological and Social Science) 4
- or AS.110.109 Calculus II (For Physical Sciences and Engineering) 4

- AS.171.113 Subatomic World 4
- AS.030.101 Introductory Chemistry I 4
- & AS.030.105 and Introductory Chemistry Laboratory I 4
- AS.030.102 Introductory Chemistry II 4
- & AS.030.106 and Introductory Chemistry Laboratory II 4
- or AS.030.103 Applied Chemical Equilibrium and Reactivity w/lab 4

- AS.171.101 General Physics: Physical Science Major I 4
- or AS.171.103 General Physics for Biological Science Majors 4
- or AS.171.107 General Physics for Physical Sciences Majors (AL) 4
- AS.173.111 General Physics Laboratory I 1
- AS.173.102 General Physics: Physical Science Major II 4
- or AS.171.104 General Physics/Biology Majors II 4
- or AS.171.108 General Physics for Physical Science Majors (AL) 4
- AS.173.112 General Physics Laboratory II 1

#### Biology Courses

Students must have 2 of the following Biology Options. Students can use any combination of the following:

- AS.020.151 General Biology I
- & AS.020.153 and General Biology Laboratory I 4
- AS.020.152 General Biology II
- & AS.020.154 and General Biology Lab II 4
- AS.020.303 Genetics
- & AS.020.340 and Developmental Genetics Lab 5
- AS.020.305 Biochemistry
- & AS.020.315 and Biochemistry Project lab 5
- AS.020.306 Cell Biology
- & AS.020.316 and Cell Biology Lab 5
- AS.020.374 Comparative Animal Physiology
- & AS.020.377 and Comparative Physiology Lab 4

#### Introductory Statistics

- EN.553.211 Probability and Statistics for the Life Sciences 4
- EN.553.311 Probability and Statistics for the Biological Sciences and Engineering 4
- or EN.553.310 Probability & Statistics for the Physical Sciences & Engineering 4
- EN.553.111 Statistical Analysis I 8
- & EN.553.112 and Statistical Analysis II 8

#### Behavioral Biology Core Courses (Offered ‘F’ = Fall, ‘S’ = Spring)

- AS.200.141 Foundations of Brain, Behavior and Cognition (F & S) 3
- AS.290.101 Human Origins (S) 3
- AS.200.208 Animal Behavior (F) 3
- AS.080.250 Neuroscience Laboratory (F & S) 3

#### Behavioral Biology Elective Courses

Three courses (3 credits each) designated ‘biobehavioral (BEHB-BIOBEH)

Two courses (3 credits each) designated ‘social science’ (BEHB-SOCSCI)

- AS.290.490 Senior Seminar: Behavioral Biology 1

#### Behavioral Biology Research/Internship Courses

Three credits (one semester) of Research, Internship or Intersession

- Galapagos trip 1
- AS.290.500 Connections in Behavioral Biology .50

Total Credits 100.5

1 For students with AP Biology credit, they may use only one course and its lab from those credits towards this requirement. Therefore, these student must take at least one biology course and its lab at JHU. Students who elect to take General Biology I or II with its lab will lose the corresponding AP credits. Students should also refer to AP credit policies for additional details around the use of AP Biology credits.

2 Students should refer to the program website ([http://krieger.jhu.edu/behavioralbiology/courses/]) or the schedule of classes to identify elective choices.

#### Sample Program

This is only one of many possible course sequences that students may elect to follow.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Credits Second Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>First Semester</td>
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<td>AS.290.101</td>
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<td>AS.200.141</td>
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<td>AS.110.107</td>
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<tr>
<td>Biology Option 1</td>
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<td>Biology Lab Option 2</td>
<td>1-3</td>
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<td>Biology Lab Option 1</td>
<td>1-2</td>
<td>BB Elective (BEHB-SOCSCI)</td>
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| Total Credits | 11-13 | 7-10 |

### Third Year

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<td>AS.171.104</td>
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<td>AS.171.103</td>
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<td>AS.173.112</td>
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<tr>
<td>AS.173.111</td>
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<tr>
<td>Research or Internship</td>
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<td>AS.290.500</td>
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| Total Credits | 14.5   | 8     |

### Fourth Year

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</table>

| Total Credits | 4      | 3     |

\(^3\) AS.080.250 Neuroscience Laboratory can be taken anytime after AS.200.141 Foundations of Brain, Behavior and Cognition

\(^4\) AS.290.490 Senior Seminar: Behavioral Biology can be taken either Fall or Spring of senior year.

### Honors in Behavioral Biology

Students receive recognition at graduation and notation on their JHU transcripts.

Requirements:

- Cumulative and Major GPA of at least 3.5
- Two semesters of research (6 credits).
- Presentation of research findings at the Undergraduate Research Symposium (Fall semester) or DREAMS (Spring semester).
- A letter of recommendation from the research mentor attesting to the student’s significant contribution to the research process.

During the semester prior to graduation, students must submit verification of their research presentation, along with their research mentor’s letter of recommendation, to Linda M. White, the Behavioral Biology Program Administrator in 434 Dunning Hall by 4PM on the assigned day.