BIOLOGICAL BASIS OF BEHAVIOR, BA

Biological Basis of Behavior is an interdisciplinary program in which students explore the relationship between behavior (both human and animal) and its organic bases. The Program offers courses in virtually all areas of neuroscience ranging from cellular neurobiology to cognitive neuropsychology and integrates these basic interdisciplinary courses with basic science requirements in biology, chemistry and psychology. Students also engaged in supervised research in areas as diverse as molecular neurobiology, chemical neuroanatomy, visual sciences and behavioral ecology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/bbb/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 101</td>
<td>General Chemistry I</td>
<td>1</td>
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<tr>
<td>CHEM 102</td>
<td>General Chemistry II</td>
<td>1</td>
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<tr>
<td>BIOL 101</td>
<td>Introduction to Biology A</td>
<td>3</td>
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<tr>
<td>BIOL 102</td>
<td>Introduction to Biology B</td>
<td>3</td>
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<tr>
<td>BIOL 121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td></td>
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<td>BIOL 123</td>
<td>Introductory Molecular Biology Laboratory</td>
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<tr>
<td>BIOL 124</td>
<td>Introductory Organismal Biology Lab</td>
<td></td>
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<tr>
<td>BIOL 446</td>
<td>Statistics for Biologists</td>
<td></td>
</tr>
<tr>
<td>BIOL 499</td>
<td>Advanced Independent Research</td>
<td></td>
</tr>
</tbody>
</table>

Cellular Neuroscience:
Select one of the following 200-level BIBB courses: 1
- BIBB 240 Chronobiology and Sleep
- BIBB 260 Neuroendocrinology
- BIBB 269 Autonomic Physiology
- BIBB 270 Drugs, Brain and Mind

Neurobiology:
- BIBB 251 Molecular and Cellular Neurobiology
- or BIOL 251 Molecular and Cellular Neurobiology

Statistics:
Select one of the following: 1
- BIOL 446 Statistics for Biologists
- STAT 101 Introductory Business Statistics
- STAT 111 Introductory Statistics

Additional BBB Major Elective Courses
Students may pick any 8 courses from the approved electives for the BBB major. 2,3

Total Course Units 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy).
2 See the BBB web site for approved courses in areas of specialized study. Students are encouraged to take a research course or do sponsored research in their junior or senior year.
3 BIBB 399 Independent Research, BIBB 499 Advanced Independent Research or a 400-level BIBB course are three of the options.

Honors Option
BIBB Honors Complete

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2019 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.