The Biological Sciences Program at the University of Maryland offers a degree program in Physiology and Neurobiology (PHNB) at the Universities at Shady Grove. The Biological Sciences Program at Shady Grove offers the Advanced Program courses normally taken in the junior and senior years.

All Biological Sciences majors complete a common sequence of introductory and supporting courses referred to as the Basic Program. For students matriculating at the Universities at Shady Grove most of these introductory and supporting courses are taken at a community college or at another four-year institution prior to admission to the Biological Sciences Program. Depending on space available, students who matriculated at College Park may transfer to the Shady Grove Program in their junior year, where they may complete the Advanced Program in Physiology and Neurobiology.

### Requirements

**Course** | **Title** | **Credits**
--- | --- | ---
**General Education Program Requirements**<sup>1</sup> | | |
Complete General Education | | |
**Basic Program in Biological Sciences**<sup>1</sup> | | |
BSCI170 & BSCI171 | Principles of Molecular & Cellular Biology and Principles of Molecular & Cellular Biology Laboratory | 4
BSCI160 & BSCI161 | Principles of Ecology and Evolution and Principles of Ecology and Evolution Lab | 4
BSCI223 | General Microbiology | 4
BSCI222 | Principles of Genetics | 4
MATH130 or MATH140 | Calculus I for the Life Sciences | 4
MATH131 or MATH141 | Calculus II for Life Sciences | 4
CHEM131 & CHEM132 | Chemistry I - Fundamentals of General Chemistry and General Chemistry I Laboratory | 4
CHEM231 & CHEM232 | Organic Chemistry I and Organic Chemistry Laboratory I | 4
CHEM241 & CHEM242 | Organic Chemistry II and Organic Chemistry Laboratory II | 4
CHEM271 & CHEM272 | General Chemistry and Energetics and General Bioanalytical Chemistry Laboratory<sup>2</sup> | 4
**Courses taken at the Universities at Shady Grove** | | |
PHYS132 or PHYS332 | Physics for Life Sciences II | 4
PHYS131 | Fundamentals of Physics for Life Sciences I | 4
PHNB | Advanced Program in Physiology and Neurobiology | 27
**ELECT** | Electives | 22
**Total Credits** | | 97

<sup>1</sup> Courses equivalent to be taken at an institution that offers lower level course work.

<sup>2</sup> CHEM272 is not offered at most institutions. Students accepted into the UMCP Shady Grove Biological Sciences may substitute a General Chemistry II Lab for this course

### Advising

Advising is mandatory during each pre-registration period for all Biological Sciences majors. Advising for students interested in or enrolled in the Shady Grove Program is available from the Director. Call 301-738-6007 for an advising appointment.