# Behavioral Neuroscience

To obtain specific instructions for how to apply to the M.S. and/or Ph.D. in Behavioral Neuroscience, prospective students should visit this page: https://www.uab.edu/cas/psychology/graduate-programs/behavioral-neuroscience

The curriculum in Behavioral Neuroscience provides a student with advanced training that is broadly based in neuroscience. All students have a plan of coursework that includes Overview of Behavioral Neuroscience, a two-semester statistics sequence (PY 716-PY 717), and an ongoing seminar in current research (PY 756). Advanced academic coursework is determined by the student and mentor. The student initially rotates among faculty and laboratories during the first year to obtain breadth in points of view and experimental techniques. Student then chooses a mentor with whom they normally complete the remainder of their research training. Before admission to candidacy, each student must complete a 2nd Year research requirement and pass the qualifying examination. Following acceptance of a proposal for dissertation research, the student is admitted to candidacy. The Ph.D. degree is awarded upon successful defense of the dissertation.

## Plan 1 Thesis

| Requirements | | Hours |
|---|---|---|
| PY 653 | Foundations of Behavioral Neuroscience | 4 |
| PY 716 & 716L | Introduction to Statistics and Measurement and Lab for Introduction to Statistics and Measurement | 4 |
| Required Statistics Elective | | 3-4 |
| PY 717 & 717L | Applied Statistical Methods and Lab for Applied Statistical Methods | |
| PY 718 | Advanced Research Design | |
| **Program Electives** [1] | | **19** |
| **Plan 1 Thesis Research** | | |
| PY 698 | Premaster's Degree Graduate Research | 6 |
| PY 699 | Master's Level Thesis Research | 6 |
| **Total Hours** | | **42-43** |

## Plan 2 Non-Thesis

| Requirements | | Hours |
|---|---|---|
| PY 653 | Foundations of Behavioral Neuroscience | 4 |
| PY 716 & 716L | Introduction to Statistics and Measurement and Lab for Introduction to Statistics and Measurement | 4 |
| **Required Statistics Elective** | | **3-4** |
| PY 717 & 717L | Applied Statistical Methods and Lab for Applied Statistical Methods | |
| PY 718 | Advanced Research Design | |
| **Program Electives** [1] | | **19** |
| **Total Hours** | | **30-31** |

[1] Program Electives:
PY 520, PY 620, PY 635, PY 687, PY 693, PY 704, PY 707, PY 708, PY 717, PY 717L, PY 718, PY 719, PY 719L, PY 720, PY 746, PY 792, NBL 625

## If entering with a baccalaureate degree:

- Completion of 48 credit hours of course work prior to candidacy.
- Up to 16 credits of the 48 can be as non-dissertation research credits.
- Up to 10 credits of the 48 can be as lab rotation, seminar, or directed study credits.
- Must complete at least two semesters in candidacy and accumulate at least 24 credit hours in 799 research **OR**
  - must complete at least two semesters in candidacy and have accumulated at least 12 credit hours in 799 research **AND**, either during or before candidacy, 12 credit hours in other appropriate research-based coursework that has been approved by the graduate student's program.

## If entering with a previous Masters degree appropriate to the PhD degree field:

- Completion of 27 credit hours of course work prior to candidacy.
- Up to 6 credits of the 27 can be as non-dissertation research credits.
- Up to 6 credits of the 27 can be as lab rotation, seminar, or directed study credits.
- Must complete at least two semesters in candidacy and accumulate at least 24 credits in 799 research **OR**
  - must complete at least two semesters in candidacy and have accumulated at least 12 credit hours in 799 research **AND**, either during or before candidacy, 12 credit hours in other appropriate research-based coursework, which has been approved by the graduate student's program.

| Requirements | | Hours |
|---|---|---|
| PY 792 | Introduction to Neurobiology (Summer Before Year One) [1] | 6 |
| **Year One** | | |
| PY 619 | Diversity, Equity and Inclusion in Research and the Workplace | 1 |
| PY 653 | Foundations of Behavioral Neuroscience | 4 |
| PY 716 & 716L | Introduction to Statistics and Measurement and Lab for Introduction to Statistics and Measurement | 4 |
| PY 717 & 717L | Applied Statistical Methods and Lab for Applied Statistical Methods | 4 |
| PY 756 | Research Seminar in Behavioral Neuroscience | 2 |
| PY 798 | Predoctoral Degree Graduate Research | 4-6 |
| Psychology Elective [2] | | 3 |
| **Year Two** | | |
| PY 756 | Research Seminar in Behavioral Neuroscience (Take Twice in Year Two) | 1 |
| PY 756 | Research Seminar in Behavioral Neuroscience | 1 |
| PY 798 | Predoctoral Degree Graduate Research | 7 |
| PY 798 | Predoctoral Degree Graduate Research (Summer of Year Two) | 3-5 |
| Three Psychology Electives [2] | | 9 |
| **Year Three** | | |
| GRD 717 | Principles of Scientific Integrity | 3 |
| PY 756 | Research Seminar in Behavioral Neuroscience (Take Twice in Year Three) | 1 |
| PY 756 | Research Seminar in Behavioral Neuroscience | 1 |
| PY 798 | Predoctoral Degree Graduate Research | 12 |
| PY 798 | Predoctoral Degree Graduate Research | 1 |
| PY 798 | Predoctoral Degree Graduate Research (Summer of Year Three) | 3-5 |

| | | |
|---|---|---|
| **Year Four** | | |
| PY 756 | Research Seminar in Behavioral Neuroscience (Take Twice in Year Four) | 1 |
| PY 756 | Research Seminar in Behavioral Neuroscience | 1 |
| PY 799 | Doctoral Dissertation Research | 4 |
| PY 799 | Doctoral Dissertation Research | 12 |
| PY 799 | Doctoral Dissertation Research (Summer of Year Four) | 3-5 |
| **Year Five** | | |
| PY 756 | Research Seminar in Behavioral Neuroscience (Take Twice in Year Five) | 1 |
| PY 756 | Research Seminar in Behavioral Neuroscience | 1 |
| PY 799 | Doctoral Dissertation Research | 12 |
| PY 799 | Doctoral Dissertation Research | 4 |
| PY 799 | Doctoral Dissertation Research (Summer of Year Five) | 3-5 |
| **Total Hours** | | **112-122** |

[1] PY 792 is completed during the summer, mid July to August, prior to the first semester in the Behavioral Neuroscience program.

[2] Elective Classes: PY 520, PY 620, PY 635, PY 687, PY 693, PY 717, PY 717L, PY 718, PY 719, PY 719L, PY 720, PY 727, PY 746, PY 751, PY 791, BY 511, BY 616, BY 648, BME 664, BME 764, BME 665, BME 765, CH 561, CH 562, CS 665, NBL 729, NBL 730, NTR 718, PHR 701

## Dauphin Island

Prior to starting the first semester of courses, students attend a three week course held at the Dauphin Island Research Facility. This course introduces students to many of the basic techniques and issues in the field of neuroscience and is paid for by the department.