Neuroscience majors must preregister for all courses they will use to satisfy requirements for the major, rather than assume they will be guaranteed entry into a course during the add/drop period if they did not preregister for it (e.g., you must preregister for NEUR-301 and/or NEUR-351).

For Advanced Placement in neuroscience, see the following requirements:

- **Chemistry**: with a Chemistry AP score of 4 or 5, follow the recommendation made during orientation (many students with AP credit still take CHEM-151).
- **Math**: you may place out MATH-111 with a score of 4 or 5 on the AB exam or a 3 on the BC exam. In this case, you still need to satisfy the Physics/Mathematics requirement with a higher-level course.
- **Biology**: you may place out of BIOL-191 with a score of 5 on the Biology AP exam. In this case you must substitute BIOL-251 or BIOL-291 for BIOL-191 requirement.

**Neuroscience majors must complete the following requirements:**

(1) **General science requirements**:

- **Chemistry**: All of the following:
  - CHEM-151 (or 155)
  - CHEM-161
  - CHEM-221 (most majors also take CHEM-231)

- **Biology**:
  - BIOL-191
  - Note: BIOL-181 is optional for Neuroscience, but should be considered by students in their first year that are considering majoring in Biology or Neuroscience but haven't decided between them yet.

- **Statistics**: One of the following:
  - STAT-111 (formerly MATH-130) -or-
  - STAT-135 (formerly MATH-135) -or-
  - STAT-230 (formerly MATH-230) -or-
  - BIOL-210 -or-
  - PSYC-122

- **Physics/Mathematics**: At least two of the following courses:
  - PHYS-116, 117, 123, 124
  - MATH 111, 121, 211
  - If you have Advanced Placement in any of these subjects, take more advanced courses.
  - MATH-111 or Advanced Placement (at least 4 on AB or 3 on BC) is a prerequisite for CHEM-161 and PHYS-117.
  - The Statistics requirement above is a separate requirement and does not count towards this Physics/Math requirement.

(2) **Introduction to Neuroscience course**

For the class of 2020, the following course must be taken in the Spring semester of your sophomore year:

- NEUR-226: Introduction to Neuroscience
Amherst College Neuroscience Major Checklist

Beginning with the class of 2021, Neuroscience Majors must take the following two courses instead of NEUR-226.

- NEUR-213: Neuroscience: Systems and Behavior (with lab)
- NEUR-214: Neurobiology (non lab)
  - Note: The NEUR-213 course must be taken in the spring semester of your sophomore year. The NEUR-214 course may be taken in the fall of either sophomore or junior year but must be completed prior to the end of junior year.

(3) Upper-level Behavioral Neuroscience: One of the following seminar courses:

- NEUR-325: Psychopharmacology
- NEUR-356: Neurophysiology of Motivation

(4) Upper-level Cellular/Molecular Neuroscience: One of the following lab courses:

- NEUR-301: Molecular Neurobiology with laboratory
- NEUR-351: Neurophysiology with laboratory

(5) Upper-level Human Neuroscience: Beginning with the class of 2021, Neuroscience Majors must take one of the following courses:

- NEUR-361: Consciousness and the Brain
- NEUR-367: Human Neuroscience

(6) Upper-level Elective: Beginning with the class of 2021 (see below for Class of 2019 and 2020 option), One additional upper-level elective from the following courses:

- An additional behavioral neuroscience course from item (3) above
- An additional molecular/cellular neuroscience course from item (4) above
- An additional human neuroscience course from item (5) above
- NEUR-245: Systems Neuroscience
- NEUR-350: Neurophysiology without lab
- NEUR-450: Seminar in Physiology
- BIOL-221: Developmental Biology (w/ lab)
- BIOL-241: Genetic Analysis (w/ lab)
- BIOL-251: Molecular Genetics (w/ lab)
- BIOL-260: Animal Physiology
- BIOL-271: Microbiology (w/ lab)
- BIOL-281: Animal Behavior (w/ lab)
- BIOL-291: Cell Structure and Function (w/ lab)
- BIOL-331: Biochemistry (w/ lab)
- BIOL-381: Genome Biology (w/ lab)
- PSYC-233: Cognitive Psychology
- PSYC-234: Memory
- PSYC-236: Psychology of Aging
- PSYC-357: History of Psychiatry
Amherst College Neuroscience Major Checklist

For majors prior to the class of 2021, follow (6) below:

(6) Upper-level Electives: For majors prior to the class of 2021, two additional upper-level elective courses, chosen as follows:

**GROUP A** (at least one course must be chosen from the following courses)

- An additional behavioral neuroscience course from item (3) above
- An additional molecular/cellular neuroscience course from item (4) above
- A human neuroscience course from item (5) above
- NEUR-350: Neurophysiology without lab
- NEUR-245: Systems Neuroscience
- NEUR-361: Consciousness and the Brain
- NEUR-367: Human Neuroscience
- NEUR-450: Seminar in Physiology
- A Five College neuroscience course that is approved by the Neuroscience faculty

**GROUP B** (a second elective may be chosen from Group A or from the following courses)

- BIOL-250 & 251: Molecular Genetics (w/ and w/out lab)
- BIOL-331: Biochemistry with lab
- BIOL-330: Biochemical Principles of Life at the Molecular Level
- BIOL-220: Developmental Biology
- BIOL-241: Genetic Analysis
- BIOL-260: Animal Physiology
- BIOL-270 & 271: Microbiology (w/ and w/out lab)
- BIOL-380 & 381: Genome Biology (w/ and w/out lab)
- BIOL-291: Cell Structure and Function
- BIOL-370: Immunology
- BIOL-310: Structural Biochemistry
- BIOL-280 & 281: Animal Behavior (w/ and w/out lab)
- CHEM-351: Physical Chemistry I
- CHEM-361: Physical Chemistry II
- PHYS-225: Modern Physics
- PHYS-400: Molecular and Cellular Biophysics (also called Biology 400 and Chemistry 400)
- PSYC-233: Cognitive Psychology
- PSYC-234: Memory
- PSYC-236: Psychology of Aging
- PSYC-357: History of Psychiatry