

# Neuroscience, BS

## Academic Plans

### Four-Year Graduation Plan

The following checkpoints list the minimum requirements students must complete by certain semesters in order to stay on the university's Four-Year Graduation Plan. Courses in the major are those required to complete the major; they may be offered by departments other than the major department.

**Before the third semester begins:** BIOL:1411 Foundations of Biology, CHEM:1110 Principles of Chemistry I, CHEM:1120 Principles of Chemistry II, MATH:1460 Calculus for the Biological Sciences or MATH:1550 Engineering Mathematics I: Single Variable Calculus or MATH:1850 Calculus I, and PSY:2701 Introduction to Behavioral Neuroscience.

**Before the fifth semester begins:** PHYS:1511 College Physics I or PHYS:1611 Introductory Physics I, PSY:2811 Research Methods and Data Analysis in Psychology I, PSY:2812 Research Methods and Data Analysis in Psychology II, and PSY:2975 Introduction to Cognitive Neuroscience.

**Before the seventh semester begins:** BMB:3110 Biochemistry, or BMB:3120 Biochemistry and Molecular Biology I and BMB:3130 Biochemistry and Molecular Biology II; BIOL:3253 Neurobiology I; one of the four approved laboratory courses; and PHYS:1512 College Physics II or PHYS:1612 Introductory Physics II.

**Before the eighth semester begins:** two required neuroscience electives.

**During the eighth semester:** one required neuroscience elective, enrollment in all remaining coursework in the major, all remaining GE CLAS Core courses, and a sufficient number of semester hours to graduate.

### Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

### Neuroscience, BS

Course	Title	Hours
<b>Academic Career</b>		
<b>Any Semester</b>		
GE CLAS Core: Sustainability <sup>a</sup>		
<b>Hours</b>		<b>0</b>
<b>First Year</b>		
<b>Fall</b>		
PSY:1001	Elementary Psychology <sup>b</sup>	3
PSY:2701	Introduction to Behavioral Neuroscience	4
CHEM:1110	Principles of Chemistry I <sup>c</sup>	4
RHET:1030 or ENGL:1200	Rhetoric or The Interpretation of Literature	3 - 4
CSI:1600	Success at Iowa	2
<b>Hours</b>		<b>16-17</b>

#### Spring

BIOL:1411	Foundations of Biology	4
CHEM:1120	Principles of Chemistry II	4
ENGL:1200 or RHET:1030	The Interpretation of Literature or Rhetoric	3 - 4
MATH:1460	Calculus for the Biological Sciences	4

**Hours 15-16**

#### Second Year

##### Fall

PSY:2811	Research Methods and Data Analysis in Psychology I	3
PSY:2975	Introduction to Cognitive Neuroscience	3
PHYS:1511	College Physics I	4
GE CLAS Core: World Languages First Level Proficiency or elective course <sup>e</sup>		4 - 5

**Hours 14-15**

##### Spring

PSY:2812	Research Methods and Data Analysis in Psychology II	3
BMB:3120 or BMB:3110	Biochemistry and Molecular Biology I <sup>f</sup> or Biochemistry	3
PHYS:1512	College Physics II	4
GE CLAS Core: World Languages Second Level Proficiency or elective course <sup>e</sup>		4 - 5

**Hours 14-15**

#### Third Year

##### Fall

BIOL:3253	Neurobiology I	4
BMB:3130	Biochemistry and Molecular Biology II <sup>f</sup>	3
Major: neuroscience elective I		3 - 4
GE CLAS Core: World Languages Third Level Proficiency or elective course <sup>e</sup>		4 - 5

**Hours 14-16**

##### Spring

BIOL:3254	Neurobiology II	4
Major: neuroscience elective II		3 - 4
GE CLAS Core: Diversity and Inclusion <sup>g</sup>		3
GE CLAS Core: World Languages Fourth Level Proficiency or elective course <sup>e</sup>		4 - 5

**Hours 14-16**

#### Fourth Year

##### Fall

Major: neuroscience elective III		3 - 4
Major: neuroscience lab course or neuroscience elective IV		3 - 5
GE CLAS Core: International and Global Issues <sup>g</sup>		3
GE CLAS Core: Values and Culture <sup>g</sup>		3

**Hours 12-15**

##### Spring

Major: neuroscience lab course or neuroscience elective IV		3 - 4
GE CLAS Core: Historical Perspectives <sup>g</sup>		3
GE CLAS Core: Literary, Visual, and Performing Arts <sup>g</sup>		3
Elective course <sup>h</sup>		3

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall) <sup>i</sup>

<b>Hours</b>	<b>12-13</b>
<b>Total Hours</b>	<b>111-123</b>

- a Sustainability must be completed by choosing a course that has been approved for Sustainability AND for one of these General Education areas: Natural Sciences; Quantitative and Formal Reasoning; Social Sciences; Historical Perspectives; International and Global Issues; Literary, Visual, and Performing Arts; or Values and Culture.
- b It is strongly recommended that neuroscience majors take this course as their GE CLAS Core: Social Science requirement and that they do so in their first semester.
- c Enrollment in chemistry courses requires completion of a placement exam.
- d Enrollment in math courses requires completion of a placement exam.
- e Students who have completed four years of a single language in high school have satisfied the GE CLAS Core World Languages requirement. Enrollment in world languages courses requires a placement exam, unless enrolling in a first-semester-level course.
- f If BMB:3120 is taken, students will also have to complete BMB:3130 to meet this requirement.
- g GE CLAS Core courses may be completed in any order unless used as a prerequisite for another course. Students should consult with an advisor about the best sequencing of courses.
- h Students may use elective courses to earn credit towards the total s.h. required for graduation or to complete a double major, minors, or certificates.
- i Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Graduation Services.