

BIOLOGICAL NEUROSCIENCE & PSYCHOLOGICAL SCIENCE DUAL B.S.

FALL 2024

This program is designed to allow students to complete a dual major in both the Biological Neuroscience program and Psychological Science in a four-year degree program at RPI.

FIRST YEAR

Fall '24			Spring '25		
Number	Course	CR	Number	Course	CR
BIOL 1010	Introduction to Biology ¹	3	BIOL 2120	Introduction to Cell & Molecular Biology ¹	3
BIOL 1015	Introduction to Biology Lab ¹	1	BIOL 2125	Intro to Cell & Molecular Biology Lab ¹	1
CHEM 1110	Chemistry I with Advanced Lab	4	CHEM 1200	Chemistry II	4
MATH 1010	Calculus I	4	MATH 1020	Calculus II	4
	HASS Inquiry Course or PSYC-1200 ²	4		HASS Inquiry Course or PSYC-1200 ²	4

SECOND YEAR

Fall '25			Spring '26		
Number	Course	CR	Number	Course	CR
BIOL 2500	Genetics & Evolution	4	BIOL 4620	Molecular Biology	4
CHEM 2230	Organic Chemistry Lab I	1	CHEM 2240	Organic Chemistry Lab II	1
CHEM 2250	Organic Chemistry I	3	CHEM 2260	Organic Chemistry II	3
PHYS 1100	Physics I	4	PHYS 1200	Physics II	4
PSYC	PSYS Core Content I ³ / Neuroscience HASS Elective I ⁴	4	PSYC	PSYS Core Content II ³ / Neuroscience HASS Elective II ⁴	4

THIRD YEAR (WITH 3RD YEAR FALL SEMESTER AWAY)

The Arch Summer Semester '26			Spring '27		
Number	Course	CR	Number	Course	CR
BIOL 4200	Biostatistics	4	BIOL	Advanced Lab Option ⁶	6
BIOL 4760	Molecular Biochemistry I ⁵	4	PSYC	PSYS Core Content III ³	4
PSYC	PSYS Elective	4	PSYC	PSYS Core Content Course IV ³	4
CSCI 1100	Computer Science I	4		Free Elective	2

FOURTH YEAR (WITH 3RD YEAR FALL SEMESTER AWAY)

Fall '27			Spring '28		
Number	Course	CR	Number	Course	CR
BIOL 4100	From Neuron to Behavior	4	BIOL 4150	Cellular Neuroscience	4
BIOL 4260	Advanced Cell Biology	4	BIOL 4250	Developmental Biology or Free Elective ⁷	4
BIOL 4270	Human Physiology or Free Elective ⁷	4	PSYC	Advanced Seminar in PSYC ⁸	4
PSYC 4310	Research Methods & Statistics II	4	PSYC 4350	Mathematical Methods in Psych. Science	4

THIRD YEAR (WITH 3RD YEAR SPRING SEMESTER AWAY)

The Arch Summer Semester '26			Fall '26		
Number	Course	CR	Number	Course	CR
BIOL 4200	Biostatistics	4	BIOL 4100	From Neuron to Behavior	4
BIOL 4760	Molecular Biochemistry I ⁵	4	BIOL	Advanced Lab Option ⁶	6
PSYC	PSYS Elective	4	PSYC 4310	Research Methods & Statistics II	4
CSCI 1100	Computer Science I	4		Free Elective	2

FOURTH YEAR (WITH 3RD YEAR SPRING SEMESTER AWAY)

Fall '27			Spring '28		
Number	Course	CR	Number	Course	CR
<i>BIOL 4260</i>	<i>Advanced Cell Biology</i>	4	<i>BIOL 4150</i>	<i>Cellular Neuroscience</i>	4
<i>BIOL 4270</i>	<i>Human Physiology or Free Elective⁷</i>	4	<i>BIOL 4250</i>	<i>Developmental Biology or Free Elective⁷</i>	4
PSYC	PSYS Core Content Course III ³	4	<i>PSYC 4350</i>	<i>Mathematical Methods in Psych. Science</i>	4
PSYC	PSYS Core Content Course IV ³	4	PSYC	Advanced Seminar in PSYC ⁸	4

This curriculum requires a minimum of 128 credit hours.

COURSES MARKED IN ITALICS ARE TYPICALLY ONLY OFFERED DURING CERTAIN SEMESTERS - FOR COURSE OFFERINGS, CHECK ACADEMIC CATALOG AND/OR WITH A MAJOR ADVISOR.

FOOTNOTES

- Students who apply Advanced Placement credits in place of BIOL 1010 Introduction to Biology and BIOL 1015 Introduction to Biology Laboratory may take BIOL 2120 Introduction to Cell & Molecular Biology and BIOL 2125 Introduction to Cell & Molecular Biology Laboratory in its place.
- Students must complete at least 1 HASS Inquiry Course and should complete or have credit for PSYC-1200 Introduction to Psychology by the end of their First Year.
- PSYS Core Content:** Students must take four of the following six courses. PSYC 4330, PSYC 4360, and PSYC 4410 also count as BLNS Neuroscience HASS Electives (See Footnote 4).

PSYC 2730 Social Psychology	PSYC 4360 Behavioral Neuroscience
PSYC 4330 Intro to Cog. Neuroscience	PSYC 4370 Cognitive Psychology
PSYC 4410 Sensation & Perception	PSYC 4450 Learning

Three of these (PSYC 4360, PSYC 4330, PSYC 4410) are also part of the Biological Neuroscience Major Neuroscience HASS Electives requirement (See Footnote 4) Students should choose their PSYS Core Content courses and Advanced Seminar courses to ensure that at least two of these choices will also meet the requirements of the Neuroscience HASS Electives for the Biological Neuroscience major.

- Neuroscience HASS Electives:** The Biological Neuroscience Major Curriculum requires Students to choose at least 2 of the following courses:

PSYC 4360 Behavioral Neuroscience	PSYC 4600 Cognition and the Brain
PSYC 4330 Intro to Cog. Neuroscience	PSYC 4610 Stress and the Brain
PSYC 4410 Sensation & Perception	PSYC 4720 Abnormal Psychology

Three of these (PSYC 4360, PSYC 4330, PSYC 4410) are also part of the Psychological Science Major PSYS Core Content (See Footnote 3) and three (PSYC 4600, PSYC 4610, PSYC 4720) are Psychological Science Major PSYS Advanced Seminar Courses (See Footnote 8). Students should choose their PSYS Core Content courses and Advanced Seminar courses to ensure that at least two of these choices will also meet the requirements of the Neuroscience HASS Electives for the Biological Neuroscience major.

- Cannot be satisfied by transfer credits.
- Communication Intensive Requirement** must be fulfilled via the **Advanced Laboratory Requirement** (6 Credits). Choose one lab from the following:

BIOL 4710 Biochemistry Laboratory	BIOL 4740 Adv. Cell Biology Laboratory
BIOL 4720 Molecular Biology Laboratory	

- Students must take either BIOL 4270 Human Physiology or BIOL 4250 Developmental Biology but are not required to take both courses. Students may substitute a Free Elective for the course they choose not to take.
- Advanced Seminar Courses:** Students can select one of the following courses to satisfy their Advanced Seminar requirement (or other HASS advisor approved course in Psychological Sciences or approval from Undergraduate Program Director). PSYC 4600 and PSYC 4610 also count as BLNS Neuroscience HASS Electives (See Footnote 4).

PSYC 4430 Psychology of Mindfulness	PSYC 4440 Sensibilities
PSYC 4600 Cognition and the Brain	PSYC 4610 Stress and the Brain
PSYC 4700 Hormones, Brain, & Behavior	PSYC 4720 Abnormal Psychology