

University of Michigan - Department of Psychology
Biopsychology, Cognition and Neuroscience (BCN) Major Worksheet

Effective Fall 2021

- Students may declare the BCN major once they have passed an Introductory Psychology course (with a "C" or better), Statistics 250 (with a "C-" or better), and complete an online Orientation. The combined GPA of these two courses must be a 2.0 or higher.
- Some courses that are graded "credit/no credit" may be used to satisfy the categorical requirement for a laboratory course, but do not count toward the 32 credits needed to complete the BCN major.
- Note that all courses, including pre-requisites, must be taken for a letter grade (with the exception of selected non-graded experiential labs).
- BCN majors are urged to consult with an advisor within the Department at least once per year to review their progress toward the major requirements.

PRE-REQUISITES TO DECLARE THE MAJOR

Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
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Note: Credits from pre-requisites do not count toward the 32 required major credits. Courses shown below where the "Credits" column is shaded cannot be applied toward the 32 major credit minimum.

Complete one Introductory Psychology Course (with a "C" or better):

Course	Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
AP credit for Psych 111 (score 4 or 5 on AP Psych exam)				4	
111 (Introduction to Psychology)	Fall/Winter	1200		4	
112 (Introduction to Psychology as a Natural Science)	Fall/Winter	480		4	
114 (Honors Introduction to Psychology)				4	
115 (Honors Introduction to Psychology as a Natural Science)				4	

Complete one Statistics Course (with a "C-" or better):

AP credit for Stats 180 will *not* fulfill the Stats pre-req. Students with Stats 180 credit may take Stats 250 at UM to fulfill this requirement (but will lose their Stats 180 credit), or take Stats 280 at UM (without losing Stats 180 credit)

Course	Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
Stats 250 (Introduction to Statistics and Data Analysis) OR				4	
Stats 280 (Honors Introduction to Statistics and Data Analysis)				4	

MAJOR REQUIREMENTS: 32 Credits Needed

Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
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Complete three Gateway Courses:

Note: One course from each of the following three gateway groups must be completed. Courses used to satisfy the gateway course requirement may not also be used toward the advanced course requirement.

Biopsychology Gateway

Course	Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
230 (Introduction to Behavioral Neuroscience)	Fall/Winter	300		4	

Cognitive Psychology Gateway

Course	Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
240 (Introduction to Cognitive Psychology)	Fall/Winter	425		4	

Breadth Gateway

Course	Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
235 (Introduction to Evolution and Behavior) OR	Fall/Winter	150		4	
250 (Introduction to Developmental Psychology) OR	Fall/Winter	300		4	
270 (Introduction to Abnormal Psychology) OR	Fall/Winter	300		4	
280 (Introduction to Social Psychology) OR	Fall/Winter	300		4	
290 (Introduction to Personality Psychology) OR	Once/Year	240		4	
291 (Introduction to the Psychology of Women and Gender)	Once/Year	120		4	

BCN Lab Requirement

The lab requirement must be met in one of the following three ways for a minimum of 5 credits. Each course must be taken for at least 2 credits in a single term. Please note that at least one course must be within the Psychology Department (only one Bio-based lab may be used).

- Option 1: One course from A (Methods Based Labs) AND one course from B (Research Based Labs)
- Option 2: Two courses from A (Methods Based Labs)
- Option 3: Honors Thesis, Senior Thesis, or Advanced Research. Students must have their plan approved by a major advisor. See below for details.

A – Methods-Based Labs

302 (Research Methods in Cognitive Neuroscience)	Fall/Winter	150		3	
303 (Research Methods in Psychology)	Fall/Winter	240		3	
331 (Research Methods in Brain, Behavior, and Cognitive Science) by application	Fall/Winter	50		4	
340 (Only Dr. Brang's Topic: Research Methods in Human Electroencephalography)		30		3	
341 (Advanced Laboratory in Cognitive Psychology)	Fall/Winter	25		3	
366 (Field Biology and Behavioral Methods)		30		3	
422 (Faculty Directed Advanced Research/Natural Science)				2 - 4	
423 (Faculty Directed Advanced Research/Upper Level Writing)				2 - 4	
451 (Advanced Research in Adolescent Psychology)				3	
Biology 226 (Animal Physiology Laboratory)				2	
EEB 381 (General Ecology)				5 - 6	
EEB 493 (Laboratory in Animal Behavior)				3	
MCDB 306 (Introductory Genetics Laboratory)				3	
MCDB 308 (Developmental Biology Laboratory)				3	
MCDB 423 (Introduction to Research in Cellular and Molecular Neurobiology)				3	

B – Research-Based Labs

226 (Undergraduate Research in Psychology - UROP)	UROP			2-4	
322 (Field Practicum in Research Techniques/Natural Science)*				C/NC	
326 (Faculty Directed Early Research for Psychology as a Natural Science)				2 - 4	
422 (Faculty Directed Advanced Research/Natural Science)				2 - 4	
423 (Faculty Directed Advanced Research/Upper Level Writing)				2 - 4	

Note: Experiential based labs that are non-graded (graded Credit/No Credit) may fulfill the categorical requirement for this lab, however, the credits do not count toward the 32 concentration credits. If credit amounts are listed next to the course, the credits may be applied to the 32 concentration credits. Students are allowed a maximum of 6 credits total toward their degree of the following courses: 322, 326.

Psychology Thesis Options:

Honors or Senior Thesis Research Sequence - Honors and Senior Thesis courses are considered to be experiential lab credit. Students may use Psych 424 or first term of 428 as a second lab; Students may use Psych 426 or second term of 428 as a methods lab or second lab. Must see an Advisor to determine how these courses will count towards your plan.

424 (Senior Honors Research I/Natural Science)				2 - 4	
426 (Senior Honors Research II/Natural Science/Upper Level Writing)				2 - 4	
428 (Senior Thesis: Research in Psychology as a Natural Science) term I				3	
428 (Senior Thesis: Research in Psychology as a Natural Science/Upper Level Writing) term II				3	

BCN Cognate Requirement

One course from this list or a Psychology 300-400 level course (lect/sem) **not** on the BCN Advanced Course list (below) is required.

	Typically Taught	# of Seats	Grade	Credits UM-AA	MHP
Anatomy 403 (Human Anatomy: Structure and Function)				5	
Anthrobio 467 (Human Behavioral Ecology)				3 - 4	
Biolchem 415 (Introduction to Biochemistry)				3	
Biology 205 (Developmental Biology)				3	
Biology 208 (Embryology)				3	
Biology 222 (From Message to Mind: An Introduction to Neurobiology)				3	
Biology 225 (Principles of Animal Physiology: Lecture)				3	
Biology 305 (Genetics)				3	

BCN Cognate Requirement Continued

CogSci 200 (Intro to Cognitive Science)				4
EEB 381 (General Ecology)				5 - 6
EEB (BIO) 390 (Evolution)				3
EEB 440/Environ 442/NRE 442 (Biology of Fishes)				3
EEB 442 (Biology of Insects)				5
EEB 450 (Biology of Amphibians and Reptiles)				5
EEB 451/Environ 451/NRE 451 (Biology of Mammals)				4
EEB 481 (Population Dynamics and Ecology)				4
EEB 492 (Behavioral Ecology)				4 - 5
EECS 281 (Data Structures and Algorithms)				4
EECS 492 (Introduction to Artificial Intelligence)				4
Ling 315 (Introduction to Syntax)				2 - 3
Ling 514 (Semantics and Pragmatics)				3
MCDB 310 or 311 (Intro to Biochemistry) or Chem 351 (Fundamentals of Biochemistry)				4
MCDB 418 (Endocrinology)				3
MCDB 422 (Brain Development, Plasticity, and Circuits)				3
Phil 340 (Minds and Machines)				4
Phil 345 (Language and Mind)				2 - 3
Phil 450 (Philosophy of Cognition)				3
Phil 482 (Philosophy of Mind)				2 - 3
Stats 401 (Applied Statistical Methods II)				4
Stats 406 (Introduction to Statistical Computing)				4

BCN Advanced Course Requirement

Students must take at least 4 courses for at least 12 credits. 2 courses must be at the 300-level and one course at the 400-level.

Note: Psych 420 may NOT be the only 400-level course. Courses in Psychology (upper level, 300+, lecture/seminar based) **not** on this list may be used to satisfy Cognate requirement.

330 (Topics in Biopsych)	Occasional	60-180		3
332 (Biopsychology of Rhythms and Behavior)	Occasional	60-180		3
333 (Affective Neuroscience)	Occasional	60-180		3
334 (Neuroscience of Learning and Memory)	Occasional	60-180		3
336 (Drugs of Abuse)	Occasional	60-180		3
337 (Hormones and Behavior)	Occasional	60-180		3
338 (Primate Behavior)	Fall term	300		4
339 (Biopsychology of Cooperation)	Occasional	60-180		3
340 (Topics in CCN)	Occasional	60-180		3
343 (Cognitive Neuroscience of Learning and Memory)	Occasional	60-180		3
344 (Second Language Acquisition)	Win term	30		3
345 (Human Neuropsychology)	Once/Year	150		4
346 (Learning and Memory)	Once/Year	60		3
347 (Perception)	Fall/Winter	30		3
348 (Psychology of Thinking)	Once/Year	60		3
349 (Talking Minds)	Occasional	75		3
352 (Development of Language and Thought)	Once/Year	30		3
355 (Cognitive Development)	Once/Year	30		3
356 (Educational Psychology)	Fall term	180		4
358 (Psychology of Adolescence)	Occasional	30		3
359 (Psychology of Aging)	Occasional	30		3
363 (Human Cognitive Evolution)	Once/Year	30		3
364 (Biopsychology of Sports)	Once/Year	30		3
365 (Advanced Animal Behavior)	Once/Year	30		3
402 (Special Topics in Psychology)	Fall/Winter	30		3
413 (History of Modern Psychology)	Win term	30		3
420 (Tutorial Reading/Independent Study)	Fall/Winter	30		2 - 4
430 (Selected Topics in Biopsychology)	Win term	60		3
431 (Selected Topics in Behavioral Neuroscience)	Occasional	30		3
432 (Selected Topics in Evolutionary and Comparative Psychology)	Occasional	30		3
433 (Selected Topics in Neuroscience)	Once/Year	30		3
434 (Neuroscience of Fear and Anxiety)	Occasional	30		3

BCN Advanced Course Requirement, Continued

435 (Neurobiology of Attention and Attention Disorders)	Occasional	30		3
436 (Sleep: Brain and Behavior, From Flies to Humans)	Winter	30		3
439 (The Developing Brain)	Once/Year	30		3
440 (Current Topics in Cognitive Neuroscience)	Fall/Winter	60		3
441 (Neuroscience and Society)	Occasional	30		3
442 (The Neuroscience of Perception)	Occasional	30		3
443 (Creativity)	Once/Year	40		3
444 (Cognitive Aging)	Fall/Winter	30		3
445 (Psychology of Language)	Occasional	30		3
446 (Altruism)	Occasional	30		3
447 (Special Topics in Cognitive Psychology)	Occasional	30		3
448 (Mathematical Psychology)	Occasional	30		3
449 (Decision Processes)	Fall term	60		3
454 (Developmental Neuroscience)	Occasional	30		3
456 (Human Infancy)	Occasional	30		3
461 (Animal Cognition)	Occasional	30		3
462 (Primate Communication and Language)	Occasional	30		3
463 (Statistical Modeling and Data Visualization in R)	Occasional	30		4
464 (Mammalian Social Behavior)	Occasional	30		3
465 (Evolution and Human Nature)	Occasional	30		3
468 (Evolutionary Endocrinology)	Occasional	30		3
469 (Advanced Primate Behavior)	Occasional	30		3

BCN GPA Requirement

A student must earn a cumulative grade point average (GPA) of at least 2.0 in all courses taken within the Psychology Department. This includes any course taken in the Department such as pre-requisites, required courses, electives, and cognates (courses taken outside of psychology, but used toward the major or pre-requisites, for example, Stats 250). Transfer courses are not calculated into the GPA unless the grade appears on the official UM transcript.

Major MHP / MSH = GPA

[Once you have declared, your major gpa can be viewed through your LSA Audit Checklist.](#)

BCN MAJOR QUICK FACTS

- ▶ Get involved in **Research!** If you are planning on attending any type of graduate program, especially within the field of Psychology, you will need research experience. You can do this for research-based lab credit. Please see the Psychology Student Academic Affairs Office for more information.
- ▶ **Transfer courses** may be applied toward your major, but at least 24 of your total 40 credits (includes pre-requisite and major credits) must be completed in-residence through the University of Michigan's Department of Psychology. Of those 24 credits, at least 12 credits must be in upper level courses (300+, letter graded) in Psychology.
- ▶ **Registration Tip:** If courses are closed:
 - Watch Wolverine Access for openings and/or waitlists
 - Attend first day of class and speak with the GSI or Professor (If class has a discussion section, you must get permission from the GSI to be enrolled in the section, then you will automatically be enrolled in the corresponding lecture.)
- ▶ **Middle Digit Trick:** The middle digit of Psychology Department undergraduate courses indicates the area of Psych with which the course is associated, with a few exceptions:

0, 1, 2=General	6=Evolution & Behavior
3=Biopsychology	7=Clinical
4=Cognitive	8=Social
5=Developmental	9=Personality

See an advisor at least once a year to review your progress!