

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

Effective Fall 2021 - present; updated on 5/31/23

- Students may declare the Psychology major once they have passed an Introductory Psychology course (with a "C" or better), Statistics 206/250/280 (with a "C-" or better, or Pass/P), and completed the online Pre-Major Tutorials at <https://lsa.umich.edu/psych/undergraduates/major-in-psychology-or-bcn/how-to-declare>.
- 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.
- All courses, with the exception of the Stats pre-requisite and non-graded research labs, must be taken for a letter grade.
- 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

Credits from pre-requisites do not count toward the 32 required major credits.

Complete one Introductory Psychology Course (with minimum grade of "C"):

	Grade	Credits	Term
AP credit for Psych 111 (score 4 or 5 on AP Psych exam)		4	
111 (Introduction to Psychology)		4	
112 (Introduction to Psychology as a Natural Science)		4	
114 (Honors Introduction to Psychology)		4	
115 (Honors Introduction to Psychology as a Natural Science)		4	

Complete one Statistics Course (with a minimum grade of "C-" or Pass/P):

[Not sure which Stats course to take? Check out this guide!](#)

Stats 206 (Introduction to Data Science) OR		4	
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

Complete three Gateway Courses:

One course from each of the following three gateway/breadth groups must be completed. Additional breadth courses do not count towards the major credits.

Biopsychology Gateway

	Grade	Credits	Term
230 (Introduction to Behavioral Neuroscience)		4	

Cognitive Psychology Gateway

240 (Introduction to Cognitive Psychology)		4	
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Breadth Gateway

235 (Introduction to Evolution and Behavior) OR		4	
250 (Introduction to Developmental Psychology) OR		4	
270 (Introduction to Abnormal Psychology) OR		4	
280 (Introduction to Social Psychology) OR		4	
290 (Introduction to Personality Psychology) OR		4	
291 (Introduction to the Psychology of Women)		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. At least one course must be within the Psychology Department (only one Bio-based lab may be used). It is recommended to complete the methods lab soon after completing the Stats pre-requisite, as methods labs build off of the foundation established in Stats. Students interested in research experience (e.g., PSYCH 326 or 331) should try to apply to labs no later than first semester of their junior year. Many labs do not accept seniors. To find research opportunities, visit:

<https://lsa.umich.edu/psych/undergraduates/research.html>

Option 1: One course from A (Methods Based Labs) AND one course from B (Experiential Labs)

Option 2: Two courses from A (Methods Based Labs)

Option 3: Honors Thesis or Senior Thesis sequence

A – Methods-Based Labs

	Grade	Credits	Term
300 (Research Methods Psych NS Special Topics)		3	
302 (Research Methods in Cognitive Neuroscience)		3	
303 (Research Methods in Psychology)		3	
331 (Research Methods in Brain, Behavior, and Cognitive Science) - by application; visit www.myumi.ch/Z6WDG (case-sensitive link)		4	
341 (Advanced Laboratory in Cognitive Psychology)		3	
342 (Research Methods in Human Electroencephalography) <i>previously taught as Psych 340</i>		3	
366 (Field Biology and Behavioral Methods)		3	
422 (Faculty Directed Advanced Research)		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/Experiential Labs

211 (Project Outreach - ONLY "Biopsychosocial Medicine" sections)		3	
226 (Undergraduate Research in Psychology - UROP)		2-4	
306 (Project Outreach Group Leading - ONLY "Biopsychosocial Medicine" sections) - by application; visit www.myumi.ch/xdxq1		3	
322 (Faculty Directed Research - C/NC)		C/NC	
326 (Faculty Directed Research - letter-graded)		2 - 4	
422 (Faculty Directed Advanced Research)		2 - 4	
423 (Faculty Directed Advanced Research - ULWR)		2 - 4	

*Research-based labs that are graded Credit/No Credit may fulfill the categorical requirement for this lab; however, the credits do not count toward the 32 major credits.

Psychology Thesis Sequence (optional)

The Senior and Honors thesis sequences are advanced research opportunities during the final two semesters. To be eligible, students must gain significant research experience *prior* to their final year. Psych 424 and 428 fulfill the experiential/research lab; Psych 426 and 429 fulfill the methods lab and ULWR. Interested students should consult with an advisor and view the website for more information:

<https://lsa.umich.edu/psych/undergraduates/honors-program/for-prospective-honors-students.html>

424 (Senior Honors Research I)		3 - 4	
426 (Senior Honors Research II - ULWR)		3 - 4	
428 (Senior Thesis: Research I)		3 - 4	
429 (Senior Thesis: Research II - ULWR)		3 - 4	

BCN Cognate Requirement

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

	Grade	Credits	Term
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	

BCN Cognate Requirement, Continued

	Grade	Credits	Term
Biology 222 (From Message to Mind: An Introduction to Neurobiology)		3	
Biology 225 (Principles of Animal Physiology: Lecture)		3	
Biology 305 (Genetics)		3	
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. For a complete list of courses that count towards this requirement, view the term-specific course charts:

<https://lsa.umich.edu/psych/undergraduates/major-in-psychology-or-bcn/course-per-term.html>

	Grade	Credits	Term
330 (Topics in Biopsych)		3	
333 (Affective Neuroscience)		3	
334 (Neuroscience of Learning and Memory)		3	
336 (Drugs of Abuse)		3	
337 (Hormones and Behavior)		3	
338 (Primate Behavior)		4	
339 (The Neuroevolutionary History of Homo Sapien; formerly Biopsychology of Cooperation)		3	
340 (Topics in CCN)		3	
343 (Cognitive Neuroscience of Learning and Memory)		3	
344 (Second Language Acquisition)		3	
345 (Human Neuropsychology)		4	
346 (Learning and Memory)		3	
347 (Perception)		3	
348 (Psychology of Thinking)		3	
349 (Talking Minds)		3	
352 (Development of Language and Thought)		3	
355 (Cognitive Development)		3	
356 (Educational Psychology)		4	
358 (Psychology of Adolescence)		3	
359 (Psychology of Aging)		3	
363 (Human Cognitive Evolution)		3	
364 (Biopsychology of Sports)		3	
365 (Advanced Animal Behavior)		3	
402 (Special Topics in Psychology)		3	
413 (History of Modern Psychology)		3	
420 (Tutorial Reading/Independent Study)		2 - 4	
430 (Selected Topics in Biopsychology)		3	
431 (Selected Topics in Behavioral Neuroscience)		3	
432 (Selected Topics in Evolutionary and Comparative Psychology)		3	
433 (Selected Topics in Neuroscience)		3	

BCN Advanced Course Requirement, Continued

	Grade	Credits	Term
434 (Neuroscience of Fear and Anxiety)		3	
435 (Neurobiology of Attention and Attention Disorders)		3	
436 (Sleep: Brain and Behavior, From Flies to Humans)		3	
439 (The Developing Brain)		3	
440 (Current Topics in Cognitive Neuroscience)		3	
441 (Neuroscience and Society)		3	
442 (The Neuroscience of Perception)		3	
443 (Creativity)		3	
444 (Intro to Neurolinguistics)		3	
445 (Psychology of Language)		3	
446 (Altruism)		3	
447 (Special Topics in Cognitive Psychology)		3	
448 (Mathematical Psychology)		3	
449 (Decision Processes)		3	
454 (Developmental Neuroscience)		3	
456 (Human Infancy)		3	
460 (Behavioral Biology of Women)		3	
461 (Animal Cognition)		3	
462 (Primate Communication and Language)		3	
463 (Statistical Modeling and Data Visualization in R)		4	
464 (Mammalian Social Behavior)		3	
465 (Evolution and Human Nature)		3	
466 (The Origins of Moral Behavior)		3	
468 (Evolutionary Endocrinology)		3	
469 (Advanced Primate Behavior)		3	
476 (Inside the Criminal Mind: Neural, Genetic, & Environmental Contributions to Psychopathy, Violence, & Aggression across the Lifespan)		3	
478 Addictive Behaviors		3	

Total Major Credits (32):

A minimum of 32 credits are required. The pre-requisite courses are not included in the total credits. If you have completed all the above coursework but have not reached 32 credits, you must complete additional BCN coursework at the 300-level or above until at least 32 credits are achieved. List additional coursework below.

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BCN GPA Requirement

Must earn a cumulative grade point average (GPA) of at least 2.0 in ALL courses taken within the Psychology Department, as well as any non-Psych courses that are counting towards the major. Stats 250 is not included in the major GPA. Transfer courses are not calculated into the GPA unless the grade appears on the official UM transcript. Once you have declared, your major GPA can be viewed through your LSA Audit Checklist:

<https://webapps.lsa.umich.edu/UGStuFileV2/App/AuditSumm/MyLSAAudChklst.aspx>

Major GPA = Major MHP / MSH = _____ / _____ =			
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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. Visit <http://lsa.umich.edu/psych/undergraduates/research> for more info.

► **Transfer courses** may be applied toward your major, but at least 24 credits must be completed in-residence through the University of Michigan's Department of Psychology (includes pre-requisite and major credits). Of those 24 credits, at least 12 credits must be in upper level courses (300+, letter graded) in Psychology. Visit <https://lsa.umich.edu/psych/undergraduates/transfer-credit> for more information.

► **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 some exceptions:

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