

Fall 2019 Welcome message to Neuroscience majors

This message provides important information you may need to act on prior to starting your fall term classes. The sections are numbered, and many are relevant to only to specific subgroups of students, so jump directly to the ones of interest to you. The sections are:

- 1) Advising appointments
 - 2) Information for students planning to graduate in December 2019, May 2020 or August 2020.
 - 3) Deadlines for applying for permission to write a senior thesis (honors or non-honors)
 - 4) Changes to MCDB numbers used for undergraduate research and for senior thesis research
 - 5) General Policies on using independent research as a D2 lab course
 - 6) Fall term 2019 required courses and upper level electives with openings
 - 7) Preliminary Plan for Winter term 2020 upper level elective classes
- 1) This year Keith Wittkopp and I will be doing most of the major advising. We prefer that each student see an advisor in person at least once a year, and we are glad to meet with students as frequently as needed. When you wish to meet with us, please try to schedule an appointment through the on-line system, <http://lsa.umich.edu/neurosci/prospective-students.html> but if all available slots conflict with your classes or work schedule, e-mail us and we can try to schedule an appointment at some other time. If you just have a quick question, feel free to e-mail me (rhume@umich.edu) or Keith (gambit@umich.edu).
 - 2) Information for students planning to graduate in December 2019, May 2020 or August 2020

The Neuroscience major holds its own commencement ceremony once a year on the same day as the University-wide Spring Commencement. The date this year is Saturday May 2, 2020. The University-wide ceremony will be in the morning at Michigan Stadium and the Neuroscience ceremony will be 5:30- 7 PM at the Michigan Theater.

There is also a University-wide commencement ceremony Sunday December 15, 2019. Students who will receive their degrees in December or August are welcome to participate in either the December or the May University-wide ceremony. It is also permissible to participate in the December University-wide ceremony and the May Neuroscience ceremony.

In order for you to graduate, the UPiN office must submit a “major release form” that verifies that the courses you have completed plus the courses for which you are currently enrolled will satisfy all rules of the major.

- a) December 2019 graduates- If you have not already obtained a release, please initiate the process of obtaining one before classes start on Wednesday, Sep 4, so that if any problems are identified, you can modify your classes sufficiently early so that you can graduate on time.

Most students should be able to complete this process on-line at:

<http://lsa.umich.edu/neurosci/undergraduates/graduation-information.html>.

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If the on-line audit does not work, please contact Keith Wittkopp (gambit@umich.edu) to help you complete your audit.

- b) May 2020 and August 2020 graduates – Please do the on-line audit in December 2019 after you have registered for Winter term classes. If you need help picking the appropriate winter term classes, please make an advising appointment in November to discuss options with Keith or me.

3) Deadlines for applying for permission to write a senior thesis (honors or non-honors)

If you plan to submit a senior thesis (honors or non-honors), you must receive approval from the steering committee of the neuroscience major to do so. Details about thesis options and a link to submit a request for approval to submit a thesis are at this link:

<https://lsa.umich.edu/neurosci/undergraduates/honors-program.html>

The deadline for May 2020 graduates is the add/drop deadline for the fall term (September 23, 2019), although late applications will still receive consideration if there are mitigating circumstances. The deadline for August 2020 and December 2020 graduates is January 21, 2020.

We strongly encourage students intending to write a senior thesis for submission in academic year 2020-21 to apply before February 2020, so they are in the top priority group for spring/summer 2020 research fellowships.

4) Changes to MCDB numbers used for undergraduate research and for senior thesis research

MCDB has introduced three new research courses for Fall 2019 (MCDB 360, 460 and 461).

Students sponsored or co-sponsored by a faculty member in MCDB for research in some area of neuroscience should elect MCDB 360 (Undergraduate Neurobiology Research) in their first semester and either MCDB 360 or MCBD 460 (Advanced Undergraduate Neurobiology Research) for subsequent semesters. Students doing any other type of molecular or cellular research should continue to register for either MCDB 300 or 400.

Students who are registered for MCDB 460 and will be submitting a senior thesis (honors or non-honors) must also register for MCDB 461 for 1 credit in the term they submit their thesis.

Students sponsored or co-sponsored by a faculty member in Psychology should continue using Psych 326 for their first semester of research in the major, and Psychology 422, 424 or 426 for more advanced research.

5) General Policies on using independent research as a D2 lab course

The neuroscience major requires that you complete two upper level labs. You can either take two classroom based labs (D1 labs) or one D1 lab and one D2 lab (a semester of appropriate independent research). To count as a D2 lab, you must register for at least two credits of research in a single semester.

- a) The appropriate course number for research to meet the D2 option is either MCDB 300, MCDB 360 or Psychology 326, as all other research numbers have one of these courses as a prerequisite. Only faculty members in MCDB and Psychology are able to grant overrides into these courses. If you are working in the lab of a faculty member appointed in any other department, you will need to identify a suitable co-sponsor in MCDB or Psychology. Please e-mail me if you need help identifying a co-sponsor.
- b) To qualify as a D2 lab, you must be involved in the design, carrying out and interpretation of experiments (often in close collaboration with a graduate student or postdoctoral fellow). Just providing technical assistance in carrying out experiments, no matter how sophisticated the methods, is not sufficient. Neither is simply helping in analysis of data from experiments designed and gathered by others.
 - i. Your research can either address a topic within an area of neuroscience (MCDB 360 and Psychology 326), OR use experimental approaches from cell and molecular biology that are widely used in basic neuroscience research to address a non-neuroscience topic (MCDB 300).
 - ii. Studies of animal models, cell culture models, human models and computational models are all potentially appropriate
 - iii. Studies focused on a purely medical topic, such as analysis of patient records are not eligible to be used as a neuroscience D2 lab. On the other hand, studies focused on understanding the underlying mechanisms of a human disorder are highly appropriate.
- c) Time expectations
 - i. Your research effort includes time spent preparing materials for experiments, carrying out experiments, analyzing data, reading papers, talking to others in the lab about your work, going to lab meetings and attending relevant research seminars.
 - ii. If you work in the lab for a fall or winter term, the time expectation for 2 credits is an average research effort of 8-12 hours per week. If your research effort is over 12 hours per week you are eligible to register for 3 credits. If you work in a lab for only a spring or summer half-term the time expectations per week are double that for a fall or winter term (because there are half as many weeks).

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6) Fall term 2019 required courses and upper level electives with openings –

Required courses- There are openings in:

Biology 222

Biology 305

Two of the three options for biochemistry (Biological Chemistry 415 and Chemistry 351)

Biology 225 and Psychology 230 are currently full, but the wait lists are short, so you may be able to get a slot in one of these classes if you add your name to the wait list.

Upper Level Electives – Some have only 1 or 2 open slots, so act quickly if you want to add them

Area A electives – MCDB 451

Area B electives –Psychology 337, 345, 430-sections 001 & 004, 440, 454, 808 (with permission of instructor for the section)

Area C electives – Biology 205; MCDB 427; Psych 335, 338, 349, 448

Area D1 labs – Biology 226, MCDB 306

7) Preliminary Plan for Winter term 2020 upper level elective classes

There will be a large number of winter term electives offered in both area A and area B, so students graduating in May 2020 will have many options for completing their major. Here is the tentative list, but there are likely to be a few changes between now and when the final class schedule is released in October:

Area A		
MCDB	422	Brain Development, Plasticity, and Circuits
MCDB	426	Molecular Endocrinology
MCDB	452	Visual Neuroscience
MCDB	458	Neuroepigenetics (Small seminar format)
HUMGEN	480	Neurodevelopmental Disorders (Small seminar format)
Area B		
Psych	240	Introduction to Cognitive Psychology
Psych	330	Topics in Biopsychology (Small seminar format)
Psych	336	Drugs of Abuse, Brain and Behavior
Psych	337	Hormones and Behavior
Psych	340	Topics in Cognition and Cognitive Neuroscience (Small seminar format)
Psych	345	Introduction to Human Neuropsychology
Psych	430	Advanced Topics in Biopsychology (Small seminar format)
Psych	431	Advanced Topics in Behavioral Neuroscience (Small seminar format)
Psych	447	Current Topics in Cognition and Cognitive Neuroscience (Small seminar format)
Neuroscience	470	Human Neuroanatomy