

**BIOL 506 (Fall)**  
**Neurobiology of Learning**

**Instructor:**     Aparna Suvrathan     McIntyre1027   514-934-1934 extn. 47140  
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**Workload:**     3 credits

**Prerequisites:** Advanced neuroscience course for undergraduate students in their final year and graduate students. Prerequisites BIOL 306 or NEUR 310 or NSCI 200 and NSCI 201 or PHGY 311 or PHGY 314 or permission of instructor. Limited to 16 students, including both undergraduate and graduate students.

**Content:**       This course explores the neurobiological basis of learning. The focus will be on the synaptic, cellular and circuit-level processes that support learning, in the context of different brain regions and forms of learning. There will be three sections in the course. The first section will be lecture based, providing a framework of the current state of knowledge in the field. The second section will involve critical analysis and presentation of recent literature by students. In the third section, students will identify gaps in current knowledge and propose research to address them. For Fall 2020, the entire course will be offered remotely. Lecture material will be available online, and the course will be adapted to include opportunities for review, discussion and questions. The second and third section involve a high level of student participation and involvement, which will also be adapted to an online format.

**Readings:**     Recent research articles and reviews.

**Method:**       Faculty lectures (first module), in-depth discussion of primary literature (second module), and work on a research proposal (third module). Two 1.5h sessions per week.

**Evaluation:**   Written exam (replaced with graded assignment/quiz/open-book exam for Fall 2020), participation in discussions, research paper presentation, research proposal, participation.