New Course

Proposal Reference Number	: 3178
PRN Alias	: 11-12#134
Version No	: 8
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Edited By	: Ms Josie D'Amico

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New Data

Program Affected? Y

Program Change Form Submitted? N (Simple Change) - Please add BIOL 320 to the list of "Other Complementary Courses" for B.Sc., Major Program in Neuroscience, under "200- and 300-level courses:" to "Basic Life Sciences Courses" in the Minor in Interdisciplinary Life Sciences; "12 credits of biologically oriented courses (BOC) selected from:" list, Major in Anatomy & Cell Biology; "3 credits of biologically oriented courses (BOC) selected from:" Honours in A&CB, "List B, 6-7 credits selected from:" Anatomy & Cell Biology Core Science Component; to "U2 or U3 Complementary Courses" list for Major and Honours in Biology under "12 credits selected from:", list of "Neurosciences Stream" in the Joint Major in Biology and Mathematics under the "Stream Complementary Courses."

Subject/Course/Term BIOL 320

one term

Credit Weight or CEU's 3 credits

Course Activities

Schedule Type	Hours per week
A - Lecture	2
Q - Conference	1

Total Hours per Week : 3
Total Number of Weeks : 13

existing neuroanatomy course offered to undergraduates (ANAT 321), which focuses exclusively on human neuroanatomy.

Responsible Instructor

Approvals Summary

Biology 320: Evolution of Brain and Behaviour

Profs. Sarah Woolley and Jon Sakata

Course Outline

I. Introduction (1 lecture)
II. Principles of brain evolution (4 lectures)
III. Evolutionary changes in brain size (2
IV. Neural Systems
  a. Cerebellum (2 lectures)
  b. Basal ganglia (4 lectures)
  c. Prefrontal cortex (3 lectures)
  d. Septum (2 lectures)
  e. Ventral Pallidum (2 lectures)
  f. Hippocampus (4 lectures)
  g. Vocal motor circuitry (2 lectures)

Each week, there will be two lectures (i.e., one two conference per week).

Selected readings potentially from:
- Striedter: Principles of Brain Evolution (2
- Butler and Hodos: Comparative Vertebrate Neuroanatomy (2005 online)
- Kaas: Evolutionary Neuroscience (2009)
- Kandel, Schwartz, Jessell: Principles of Neural Science (2000)
- Purves et al.: Neuroscience (2008)

The grades will be based on the following:
20% midterm exam
30% final exam
30% research paper
10% presentation
10% class participation