Honours Biology and Psychology, Neuroscience & Behaviour (B.Sc.)  
USCHS-HBIOLPSYC

Program Overview
Honours Biology and Psychology is designed for students with broad interests in the biological and neurosciences who want the freedom to choose the best courses from the Department of Biology and the Department of Psychology, Neuroscience & Behaviour (PNB). The program is uniquely interdisciplinary. Students can merge leading-edge knowledge from both fields, combining molecular biology, development, or ecology with the latest ideas in cognition, learning, or neurophysiology to gain a truly ‘big picture’ perspective of the living world. The fourth year research thesis may be taken under the supervision of either a Biology or PNB faculty member. Students can gain exciting hands-on experience in topics as diverse as clinical studies of child development, fieldwork in behavioural ecology, cellular neuroscience, or the molecular biology of social learning and memory. Because the program provides students with an elite double-major honours degree in Biology and PNB, it facilitates access to graduate schools in either discipline and to an array of clinical or professional programs (e.g., law, medicine, dental, clinical psychology), and it opens doors to careers in university or industrial research (e.g., pharmaceutics), genetic counselling, or education.

ADMISSION
Enrolment in this program is limited and possession of the published minimum requirements does not guarantee admission. Selection is based on academic achievement but requires, as a minimum, completion of any Level I program with a Grade Point Average of at least 5.0 including:
6 units BIOLOGY 1A03, 1M03 with an average of at least 7.0
3 units PSYCH 1XX3 with a grade of at least B-
6 units CHEM 1A03, 1AA3 with an average of at least 7.0
3 units from MATH 1A03, 1LS3
3 units from PHYSICS 1A03, 1C03
3 units from Science 1 Course List (See Admission Note 2).

ADMISSION NOTES
1. One of PHYSICS 1A03 or 1C03 is required for admission.
2. Completion of either PSYCH 1F03 or 1X03 is required by the end of Level II, however, PSYCH 1X03 is recommended in Level 1.

BIOLOGY COURSE LIST
BIOCHEM 2EE3, 3G03, 3H03, 4E03, 4EE3, 4M03, 4Q03; BIOLOGY 2A03, 2B03, 2D03, 2EE3, 2F03, 2L06 (or 2L03), all Level III and IV Biology and Molecular Biology courses; BIOPHYS 2A03; CHEMBIO 3BM3; HTH SCI 3DD3, 3I03, 3K03, 3L03, 4BB3, 4L3.

PSYCHOLOGY COURSE LIST
KINESIO 3E03, 4P03; LIFE SCI 3BB3, 3K03; LINGUIST 2PS3, 3C03, 3NL3; MUSICO 2MA3, 2MP3, all Level III & IV MUSICO courses; PNB 2X03, all Level III and IV PNB courses; all Level III and IV PSYCH courses (except PSYCH 3AB3, 3AC3, 3AG3, 3BA3, 3CB3, 3CD3 may only be used as elective credit.)
REQUIREMENTS: 120 UNITS *(LEVELS 1 TO IV)*

**LEVEL 1: 30 UNITS** *(See Admission)*

**LEVELS II: 30 UNITS**
3 units  BIOLOGY 2C03 (Genetics)
3 units  from BIOLOGY 2A03 (Animal Physiology), BIOLOGY 2B03 (Cell Biology), BIOLOGY 2F03 (Ecology)
6 units  CHEM 20A3, 2OB3 (Organic Chem I & II)
3 units  PNB 2XE3 (Descriptive Statistics)
3 units  from PNB 2XA3 (Human Perception & Cognition)
3 units  PNB 2XB3 (Neuroanatomy & Neurophysiology)
3 units  PNB 2XC3 (Animal Behaviour & Evolution)
0 units  PNB 2XT0 (PNB Tutorial)
6 units  Electives (PSYCH 1X03 or 1F03 and PHYSICS 1A03 or 1C03 if not completed in Level I; otherwise, PNB 2XD3, Integrative PNB through Scientific Writing & 2XF3, Perspectives in PNB, are recommended)

**LEVEL III: 30 UNITS**
12 units  from Biology Course List (with at least 6 units from Level III)
3 units  PNB 3RM3 (Research Methods Lab)
3 units  PNB 3XE3 (Inferential Statistics)
3 units  from Psychology Course List
3 units  from Level III or IV Biology or Psychology Course List
6 units  Electives

**LEVEL IV: 30 UNITS** *(Note: Students must complete a thesis course but it may be from either Biology or Psychology)*
9 units  from Level III or IV Biology Course List (may include thesis course, BIOLOGY 4C09 A/B or 4F06 A/B, S)
9 units  from Level III or IV Psychology Course List (can include thesis course, PNB 4D09 A/B or 4DD6 A/B)
6 units  from Level III or IV Biology or Psychology Course List.
6 units  Electives

**Faculty Program Advisors:**

Psychology, Neuroscience & Behaviour - (pnb@mcmaster.ca)
  - Dr. Sigal Balshine
  - Dr. Paul Faure

Biology – (biology@mcmaster.ca)
  - Dr. Graham Scott

**Web Sites:**
  - Psychology, Neuroscience & Behaviour  [http://pnb.mcmaster.ca/](http://pnb.mcmaster.ca/)